FEBRUARY 1949

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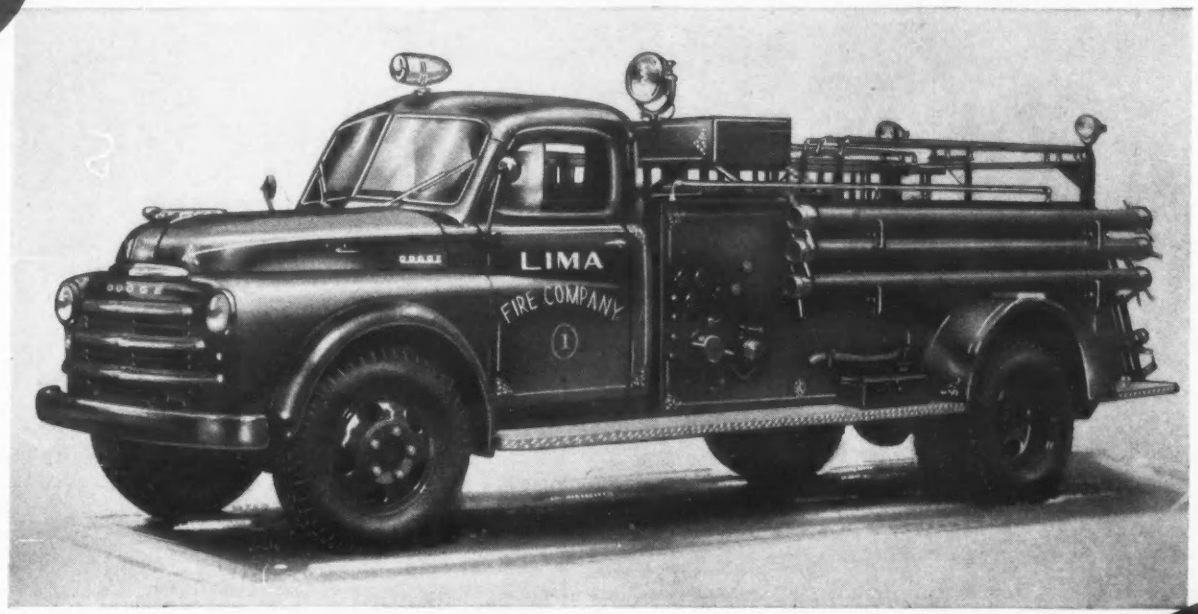

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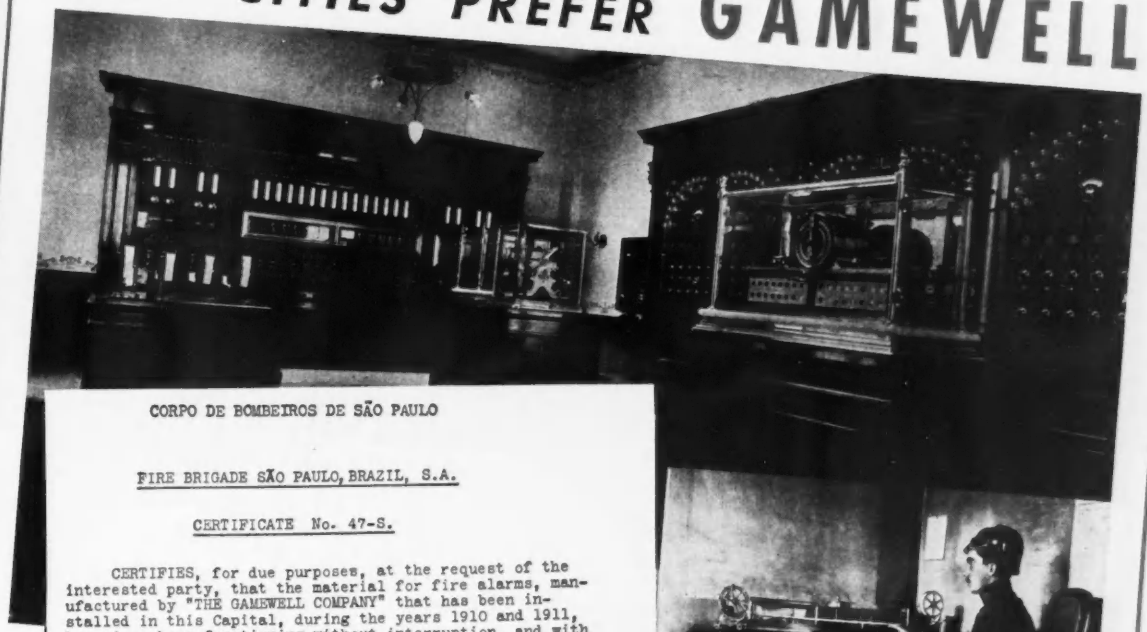

CORPO DE BOMBEIROS DE SÃO PAULO

FIRE BRIGADE SÃO PAULO, BRAZIL, S.A.

CERTIFICATE No. 47-S.

CERTIFIES, for due purposes, at the request of the interested party, that the material for fire alarms, manufactured by "THE GAMEWELL COMPANY" that has been installed in this Capital, during the years 1910 and 1911, has since been functioning without interruption, and with precision and efficiency.

The solid construction of the system has been such that, in 28 years of service, it has shown no wearing of parts, whether through usage or through the action of time, so that it's service at present is as perfect as when it was new. Owing to the excellent results, it is sufficient to say that this Corporation, when taking steps towards putting in further installations and boxes, demanded the same material, for it found that it was unnecessary to try new products in a service of such great responsibility as that of fire alarms.

Barracks in São Paulo, February 10th., 1939

For greater clarity, I sign the present.

(Antonio Amaro Sobrinho)
Tenente Coronel Comandante

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Public fire alarm systems manufactured by Gamewell are skillfully adjusted to operate reliably under adverse climatic conditions. The São Paulo system, installed in 1910, is a typical instance of long and satisfactory operation in the hot and humid tropics—Gamewell Systems have developed similar records in the near Arctic regions of Canada and Alaska.

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● Chief Juilleret's response is typical of the enthusiasm displayed by fire and city officials in more than a thousand communities served by Mack fire apparatus. For experience shows that Macks deliver pace-setting performance — better at the start, better in the long run.

There are many reasons for Mack leadership in performance. *Advanced thinking and planning,* guided by constant alertness to changing firefighting problems. *Thorough experience,* represented by nearly forty years of uninterrupted motorized fire apparatus production. *Quality control,* through outright design and fabrication of major components by the greatest research, engineering and manufacturing facilities in the industry. And *country-wide service,* for quick and sure protection of your investment.

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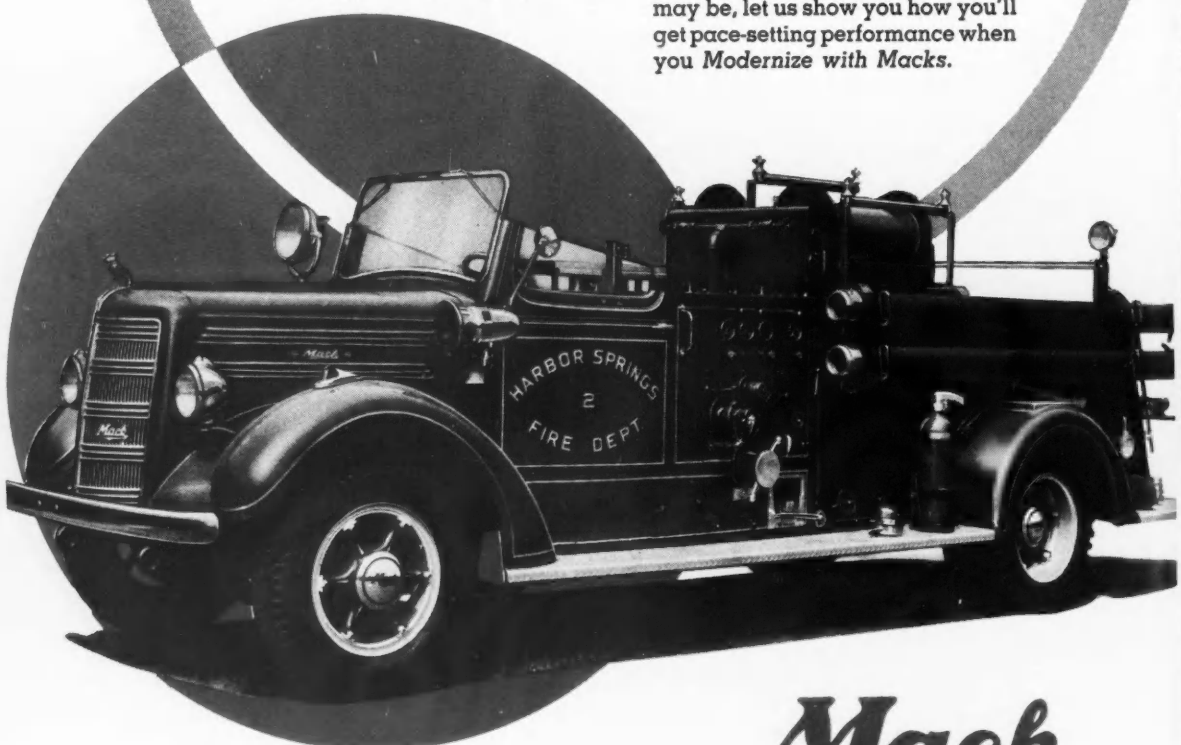

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Firemen

Volume 16 Number 2

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Accounts of fires appearing in FIREMEN *are copies of or extracts from reports forwarded to the Association. This Association, as a body, is not responsible for the statements or opinions of any of its members.*

TELEVISION receiving sets have become almost standard equipment in fire department houses located in areas served by this latest means of communication and information. The tables were turned recently in Washington, D. C., when firemen of Engine 16 and Truck 3 were televised over NBC station WNBW-TV. The theme of the program was an explanation of the function of the various pieces of apparatus. This event is shown in the cover photograph by DCFD photographer H. F. Rothery. It has been suggested that TV offers an excellent opportunity to spread the message of fire prevention and fire safety in an attractive and interesting form.

THE first NFPA Annual Meeting to be held in San Francisco since 1921 is scheduled for May 16–19, 1949. It is not too early to make plans to attend. Advance plans for the meeting were announced in the NFPA Fire News for January which was mailed to all members. Additional details will appear in future issues of FIREMEN.

A VERY dangerous practice or trend noticeable in many communities is the response to alarms of fire involving buildings with a mere skeleton crew often consisting of but two or three men and perhaps a single piece of apparatus. This practice, no doubt, has developed due to criticism directed toward the fire service by unthinking members of the public who have been all too ready to attempt to ridicule the firemen with such remarks as: "Only an automobile fire, yet they brought an aerial ladder." It is not appreciated that from the initial call firemen may not know the exact nature of the fire, and the aerial ladder may be needed to save the critic's life if trapped on an upper floor. Even an automobile fire can readily result in a $2,000 loss these days and the truckmen responding with the aerial may have useful work to do.

There has been an increasing tendency in the interests of ill-advised economy to reduce response of apparatus to mere investigating details, particularly for telephone calls or so-called "still alarms." The surest way to defeat in fire fighting is to underestimate the enemy — FIRE. A fire may not look too serious from outside observation and yet be raging through the partitions of a building. The smoke may not look bad enough to warrant extensive ventilation and yet there may be sufficient heat under the roof to burn away the roof in a few minutes or drive the fire fighters outside with a back draft.

The effective way to appraise the nature of a fire or the type of attack that may prove most successful, is for experienced fire officers to arrive as soon as practicable with sufficient men and apparatus at least to prevent extension of the flames and save lives while fully adequate forces are mobilized.

In some communities the addition of two way radio on the apparatus may provide a temptation to send out a reconnaissance crew to determine the nature of the call before dispatching a normal complement of men and equipment. Such a practice will inevitably result in loss of life and extensive property damage. An experienced fire alarm superintendent has stated that a better practice is to start the full first alarm response immediately upon receipt of an alarm and then if the first equipment finds that the fire is trivial the radio can be used to return other units to quarters or put the companies "in service on the air," ready to answer subsequent calls.

For many years recommended minimum response to first alarms in residential districts of communities of over 5,000 population has been set at not less than two pumper companies properly manned, plus adequate ladder equipment, depending upon the nature of the structures in the area served. In closely built sections and where structural conditions warrant, the response should be proportionately greater.

In mercantile and manufacturing districts of the larger communities, the required first alarm response may be four pumper and two ladder companies plus hose trucks and other special equipment. Suggestions as to proper response to alarms appearing on page 667 of the 10th Edition, NFPA Handbook of Fire Protection, conclude with: "The foregoing response to alarms should be the same whether the alarm is from street box, telephone, verbal, sprinkler or automatic alarm, except that where telephone or verbal calls definitely indicate an automobile fire or fire other than a building fire, the response may be limited to the apparatus known to be needed.

The Long Beach Plan for Fire Inspection

By Chief Frank S. Sandeman, Long Beach, California

A CRITICAL examination of fire service history will disclose that in the matter of fire prevention we have not kept pace with our advance in the other fields of fire safety. In fire prevention, the nation's fire service, as a whole, has made practically no progress in two decades. There are isolated instances of good work, of course, but the overall picture is far from good.

First we must make the people of our communities really fire conscious, day in and day out, so that fire safety will become a subconscious part of their every activity. Second, by strict and impartial enforcement of the fire prevention laws, we must reduce the *fruits* of carelessness by eliminating as many as possible of the conditions under which fire can breed and spread.

The way to prevent a fire is to work at it. If you pass a law, then sit back to see what will happen, nothing will happen. The best law in the world has no value unless it is enforced. To enforce a law, you must see whether or not it is being violated. That means active fire inspections. Not just one week per year, but 52 weeks per year.

Fire inspection work, conducted in the manner provided in the Long Beach Plan, will do more in one year to render fire conscious those people in the community who need it most, than would monthly speeches before every service club in the city, because in each instance it deals with immediate, actual problems, rather than generalities.

Fire inspections, as we now conduct them in Long Beach, automatically bring about the elimination of the small hazards that cannot possibly be discovered during routine inspections by the limited personnel of the fire prevention bureau.

Some of you might point out that you are making fire inspections now, yet fire losses in your community continue to climb. If that is so, you are falling short somewhere, just as we have been.

Suppose we examine the problem from a cold mathematical standpoint.

In house-to-house salesmanship it has been proven that the ratio of calls-per-sale can be definitely determined, depending upon the time of day, the product, the season, the weather and other pertinent factors. Let us say that the sales ratio of a given article is one sale to every ten calls under normal conditions. The more calls, the more sales. It is as simple as that. In other words, the more work, the more results. Or, to be precise about it, the more fire inspections, the more fire prevention.

While the solution is that simple in theory, the results in our profession are not as readily perceived as they are in commerce where the success of a sales program can be measured in dollars and cents that can be counted at the end of the day. With a long range program of fire prevention we must await the compilation of the annual fire loss figures to see a favorable end-point.

We have now developed three incontrovertible facts:

1. We must work to reduce the percentage of fires caused by carelessness.
2. To do this, we must have an adequate fire prevention code.
3. We must conduct more fire inspections.

The question *now* is, How shall we do this?

There are two ways to increase the number of inspections: either add to the personnel of the Fire Prevention Bureau or assign the additional inspection work to the fire fighters—the men in the stations.

The first method involves extra salaries as well as additional space and office equipment for the Bureau, a costly solution. If the work on the other hand is assigned to the fire fighters, much is gained. In fact, *so much* is gained that it will bear enumeration.

First, it renders unnecessary a large expenditure for Bureau expansion.

Second, it provides the fire fighters an opportunity to study the physical characteristics, the occupancy and contents of the principal hazards in the "first in" districts, the very buildings in which they may some day be called upon to fight a fire.

Third, it will not only add to the firemen's geographical knowledge of his district by actual contact with the physical properties, it will provide valuable education in building construction and fire prevention methods that will pay off during promotional examinations.

Fourth, by dealing with each individual occupant's *immediate* fire prevention problems . . . the ones you can see . . . public education and public relations are both promoted and their effect is cumulative.

Fifth, it will make the general public more fire conscious and more appreciative of the services rendered by the fire department, merely to *see* the firemen in the field and to *know* that they are conducting inspections.

Considering the two methods strictly on their merits it is evident there is only one choice. The men in the fire companies offer an untapped source of strength.

It might appear that reducing a five-man company by 20% in order to send one man into the district for inspection is tampering with fate until it is remembered that even with 7 million men under arms, the Army found it expedient to assume many "calculated risks." Moreover, the man on inspection is never far away, should he be needed.

This is the basis of the Long Beach Plan. The work already being carried on by the Fire Prevention Bureau is supplemented by inspections conducted by the fire fighting personnel. Although both organizations operate independently of each other, there is neither duplication nor confusion, for the reason that there is a different purpose behind each group's work.

The Bureau personnel constitute the top level experts. They deal with the big problems of construction and control. The fire fighters' inspection chores begin where the Bureau stops. When a new structure is planned and that structure is of sufficient size or of such nature as to require the attention of the Fire Prevention Bureau, the plans pass through the Bureau for compliance with the Code. As construction work progresses, Bureau inspectors check the fire safety installations to be certain they comply with the approved plans. Upon completion they make a final inspection and supervise or observe tests as required. From there on the firemen can assume that the installations comply with the law.

But here is where the unpredictable human equation steps into the picture. Exits to fire escapes, for example, which were in perfect condition when the building was new, can be blocked or even locked after the building is occupied. Counterbalanced fire escape drop ladders or stairways, broken cables or disturbed counterbalances can become inoperative from disuse. Fire escape platforms are sometimes used as storage areas. Smoke tower doors are often propped open to permit the entry of cool air into otherwise stuffy rooms or areas. Standpipe thread protectors may be removed and threads damaged by thoughtless youngsters or the ground level fittings might be damaged by carelessly handled motor trucks. Sprinkler supply valves may be turned off during repairs to the system and not turned on again.

Stock might be piled too close to sprinkler heads to permit proper dispersion of spray. The list is a long one and while it includes the usual bugaboos of housekeeping and properly charged extinguishers, it goes far beyond that point.

SO far we have been dealing with intangibles. Now let's get down to cases. In Long Beach we have been fortunate in two respects. We have an

excellent Fire Prevention Code as well as an efficient Fire Prevention Bureau. Thus, a large part of the overall problem was already solved. It only remained for us to determine what the plan's fundamental needs were and how it should operate. It was found that if the plan was to operate to best advantage, five fundamental steps were necessary. They are as follows:

a. The plan must be controlled from a single point so as to avoid such duplications as we had experienced in the past wherein more than one station or platoon would, because of lack of coordination, inspect the same premises within a very short time-period.

b. The mechanics of the plan must be so arranged that no chief officer will be turned into a clerk or a messenger.

c. It must remove from the shoulders of the company commander the annoying burdens usually connected with the preparation for inspections, at least in the major occupancies. This includes making actual appointments with a top official of the premises to be inspected.

d. To accomplish *a*, *b* and *c* above, the plan, once inaugurated, must be operated by a man experienced in fire fighting and fire prevention; one who knows how to meet and deal with the public. He must devote full time to the job under the immediate direction of the Chief or Deputy Chief but with a good deal of latitude for independent judgment, working under well defined rules understood by every member of the department.

e. The plan must be thoroughly tested before reaching its final operating stage.

In setting up the Long Beach Plan every one of these requirements has been met. Moreover, in addition to a brief test, participated in by three stations on each platoon using typewritten forms prior to having the initial supply of regular forms printed, we are now engaged in the final stages of the principal test which will cover a period of from four to six months. The number of actual major inspections conducted during the first four months has been 320. If the test lasts 6 months, there will have been 576 major inspections made. The experience gained from these inspections will determine the final format, phraseology and layout of the forms as well as the procedure.

The officer in charge of the plan is a captain. He is known as the Control Officer. Before him, for reference, is the monthly tower-and-street-drill schedule. Selecting the premises to be inspected from a list of Major Occupancies, the Control Officer prepared a tentative list of inspection assignments, all dated for the following week, one for each station on each platoon, taking care to avoid the dates and hours when the various companies are scheduled to engage in street and tower drills.

Continued on page 23

LONG BEACH FIRE DEPARTMENT

INSPECTION REPORT

1* **Date:** ..... **Inspector:** ..... **Sta:** ..... **Plat:** .....
2* **Building:** ..... **Address:** .....

CONSTRUCTION

3* **Type Construction:** ..... **Height:** (stories) ..... **Age:** (approx.) .....
4* **Roof:** Gable; Sloping; Flat; Arch, Slab, Sawtooth. Roof framing material: Wood, Metal. Roof covering material: .....
5 **Skylights:** None. Number .....
6 **Attic:** None. Blind. Location interior access: .....
By stairway, By ladder. Roof access: None. Location: .....
7 **Walls:** Masonry; Metal; Frame. Fire wall: Pierced; Unpierced; Is there a parapet: ☐. If pierced, is there fire door at opening: ☐.
8 **Floors:** Masonry; Metal; Wood. Condition good: ☐.
9 **Ceilings:** Open to roof rafters; Plaster; Metal; Wood. .....
10 **Stairs:** None. Continuous; Staggered. Stair well open; Enclosed. Enclosure material: .....
Stairway doors unlocked: ☐.
11 **Trap Door:** None. From: ..... To: ..... Size: .....
12 **Elevator Shafts:** None. Open; Partly enclosed; Fully enclosed; Enclosure material: .....
Doors self-closing; Nonself-closing; Fusible link closing. Location each elevator .....
13 **Vertical Exposures:** Beltways; Conveyorways; Hatches; Hoists; Light Shafts; Air Shafts; Pipe Shafts; Dumb Waiters; Laundry Chutes; Trash Chutes.
14 **Fire Doors:** None. Automatic closing; Fusible link closing; Closed only at night. Non-combustible sill ☐. Were doors unobstructed: ☐.
15* **Best Emergency Entrance:** .....
16 **Other Exits:** .....
17 **Basement, Cellar:** None. State which: ..... Full; Partial. Number stairways leading up: .....
To: ..... To: .....
Were all exits unobstructed: ☐.

CONTENTS

18 †**Number of)** Day: Over 50 years: ..... Under 7 years: ..... Total: .....
Occupants: Nite: Over 50 years: ..... Under 7 years: ..... Total: .....
19* †**Use of Building:** If multiple occupancy, name each: .....
20 **Hazardous Liquids or Solids:** Kinds and quantity of each when considerable: .....
Where stored: .....
Describe containers: .....

UTILITIES

21 **Electric:** Location meter and main switches: .....
22* †**Gas:** Location meter and shutoff: .....
23* †**Water:** Location main valve: .....
24 †**Power:** Voltage incoming: ..... Voltage used: ..... Transformer vault in building: .....
Where: .....

HEATING, REFRIGERATION, AIR CONDITIONING

25 **Heating:** Type used: Electric; Steam; Space heaters; Gas; Oil. Location of heating unit: .....
26 †**Refrigeration:** None. Location of plant: .....
Individual units. Refrigerant used: ..... Location ammonia diffuser: .....
F. D. diffuser connection: .....
27 †**Air Conditioning:** None. Location of unit: .....

LIFE SAFETY

28 **Fire Escapes:** None. Location: .....
Condition good: ☐ Access unobstructed ☐
29 **Smoke Towers:** None. Location: .....
Were doors self-closing: ☐ Were doors properly closed: ☐
30* **Outside Stairways or Ramps:** None. Location: .....

FIRE EXTINGUISHMENT

31 **Roof Water Tanks:** None. Location, capacity and weight of each: .....
Location tank shutoff valve: .....
32* **Elevated Water Tanks:** None. Location and capacity: .....
33 **Sprinkler System:** None. Control valve location, each floor or section: .....
†Extra heads: ..... Where stored: .....
* Location of FD connection: .....
34 **Interior Wet Standpipes:** None. Number outlets ea. floor ..... Roof: ..... Valve condition good: ☐ Hose condition good: ☐ Nozzle clear: ☐ Hose properly stowed: ☐
Location of fire Dept. connection: .....
35 **Dry Standpipes:** None. Location ground inlets: .....
Location standpipes: .....
Number roof outlets: ..... Thread condition good: ☐
36 **Fire Extinguishers:** None. Kind and number each floor: .....
Condition good: ☐

MISCELLANEOUS

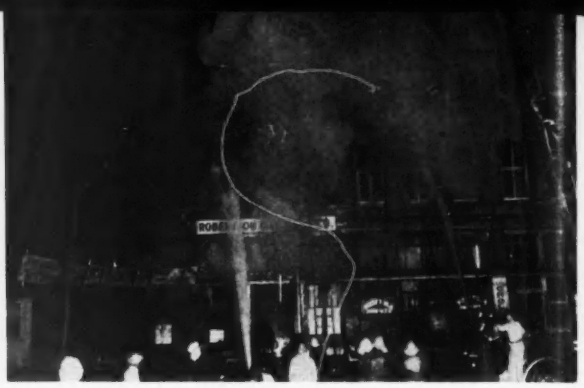
37* **Exterior Exposures:** Distance to, height and type of exposed buildings: .....
38 **Special Hazards:** .....
39 **Watchman Service:** ..... 40. **Housekeeping Good:** ☐
41* **Nearest Hydrants:** .....

REMARKS

.....

This inspection form (two 8½x11 in. pages) is organized to group related matters and was perfected in a conference of chief officers. All "remarks" are related to numbered items on the report. Items marked with asterisk should be ascertained before entering property where possible. Items indicated by inverted T should be checked with management before beginning tour of property. Where "No" is entered in a box it always indicates that the matter must be brought to the attention of the Fire Prevention Bureau on a correction notice.

This group of old structures on Commerce Street, Houston, was demolished on recommendation of Fire Marshal Clooney.



Seven months after 85 aged and infirm men had been evacuated from this building a major fire occurred that could have caused heavy loss of life.

Houston Fights Fire Fatalities

By P. W. Clooney, Fire Marshal
Houston Fire Department

HOUSTON has grown with extreme rapidity. During this period of growth much was overlooked in regard to the safety of occupants and possible egress from buildings in the event of fire. During the years 1926 to 1942 inclusive, our fatalities resulting from fire totalled 335 or an average of approximately 20 each year. The greatest number in any one year was 33 and the least number was 12.

In 1943 our city experienced what we might term "THE GREAT AWAKENING." The total number of fatalities resulting from fire that year soared to the startling figure of 80 with a single hotel fire responsible for 57 of these unfortunate deaths. It was the attention focused by this single hotel fire that made, not only city officials, but the citizens as well, aware of the hazardous conditions that existed in our city.

With splendid cooperation from our citizens and groups directly interested in fire prevention, we launched an extensive program to provide a minimum of two exits from buildings where fires might cause loss of life. Special consideration was directed toward buildings then decidedly overcrowded by war workers who at that time had much difficulty in securing any shelter. Due to the shortage of steel, lumber and other building materials it was a trying time indeed. Many compromises had to be allowed in order to provide reasonable safety and simultaneously assist the war effort.

City Attorney Will Sears holds the fire hazard placard while Fire Marshal P. W. Clooney hammers. The placard gives 30 days' notice that the building must be vacated. At the end of this time, if people are still living there, another placard declaring that it is unlawful to live there will be posted. After that, fines up to $200 a day can be assessed each day against both owner and the tenants, and Fire Marshal Clooney can order lights and gas cut off under the city's new fire hazard ordinance.

During the early stages of this program, we realized that additional legislation would be necessary to efficiently effect our program. Accordingly we suggested additional legislation to the city fathers. The year 1944 followed with 20 fire fatalities and 1945 had 18 more. The final passage by the city council of Ordinance 603–1 came on August 15, 1946. In general, this ordinance provided for the creation of a Fire Hazard Inspection Committee to hear cases and recommend repairs or condemnation by the fire marshal. After hearings, the findings of this committee were to be brought before the city council and by recommendations of this committee the city council was to order repairs or demolision of buildings that constituted a life hazard.

After several cases had been processed it became evident that this procedure was too slow. In almost every case our recommendations would bog down in an imposing maze of red tape while the hazardous conditions remained. The years 1946 and 1947 followed with 18 and 14 fire fatalities respectively. During these two years the deficiencies of ordinance 603–1 were carefully scrutinized and a new ordinance No. 2253 was drafted and finally passed by the city council on January 21, 1948. The essence of this new ordinance eliminated the Fire Hazard Inspection Committee and much of the red tape, and gave the fire marshal authority, when in his opinion a building constitutes a hazard to the occupants, to placard the building and order the tenants to vacate and also to demand of the owner, under penalty of law, to repair or raze the building whichever might be considered feasible.

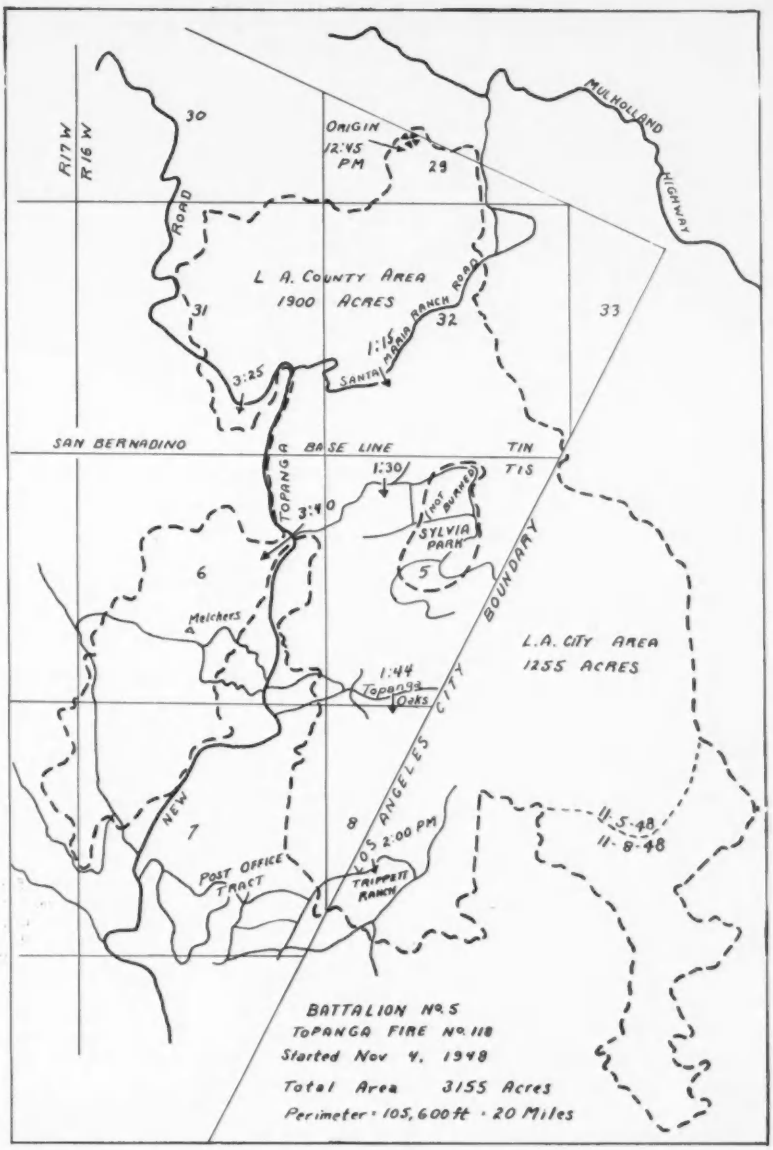
With the assurance that we now had a law with teeth, we lost little time and on March 3, 1948, the first of these placards was posted. Subsequently, ten other buildings have been placarded. By December 1, eight of those buildings had been completely demolished and two are being currently processed.

It should be mentioned in this connection that buildings which are placarded are not the only ones to be repaired or demolished but quite to the contrary they represent only a very small portion of the number of buildings that are either repaired or demolished. Several hundred such buildings have been eliminated or repaired by routine recommendations from our inspectors. This can be attributed to the fact that the proper laws exist and owners are aware of the procedure that will follow should they choose to defy the recommendations.

We consider that there are many other buildings in our city that in time will have to undergo the same procedure and they will be processed as soon as time permits. However, the results obtained thus far are very gratifying.

AN outstanding example of lives almost certainly saved by the program was a building on Preston Avenue, the second floor of which was occupied as a "mission" shelter for some 85 aged and practically disabled men. During a routine inspection it was found that there was an open elevator shaft extending from the basement to the second floor which would provide a perfect flue in case of a fire in either the basement or first floor. Upon our recommendation this entire mission was moved out of the building about February 15, 1948. Only seven months later on September 28, 1948, a fire started in the basement and traveled, exactly as had been anticipated, up through the open elevator shaft to the second floor. Before fire apparatus could be brought into operation the entire building was charged with smoke heavy enough to suffocate any human being that might have been in the building and fire damaged the entire building.

Unfortunately there is no table or guide that we can apply to calculate the number of human lives that might have been lost if the mission had been permitted to occupy the second floor until the fire occurred. We men in the profession of the fire service have learned long ago that while figures of loss of life and property are recorded, fires prevented or lives saved often must be recorded as probables. However, there is a sense of realization that our accomplishments in prevention of suffering are exceedingly gratifying when viewed in the light of what might have happened in cases such as the fire just mentioned.



Huge Incendiary Brush Fire in Los Angeles County

A 54-year-old transient pyromaniac confessed to starting this 3,155 acre fire in heavy brush inaccessable to pumping equipment. According to 5th Battalion Chief C. R. Gehr of Los Angeles County, 37 dwellings were destroyed, 12 dwellings were damaged, 53 other structures were destroyed or damaged with loss of $284,367 exclusive of damage to watershed growth.

Neighbors phoned the alarm at 1:00 P.M. Due to weather conditions at the time, the fire travelled 3½ miles in 75 minutes but was checked by tank trucks and bulldozers near Trippett Ranch by 3:30 P.M. At 3:25 the fire first jumped the Topanga Canyon road but was held. Fire again jumped the road at 3:40 and spread rapidly down the west side of the Canyon. This head fire was checked near Topanga Canyon post office by pumpers and bulldozers about 11:30 P.M.

The fire was fought by 500 men, 22 fire companies, and 5 bulldozers. Some 400 dwellings were exposed to the fire. The only water supply adequate for fire fighting was a 6-in. main along Topanga Canyon Boulevard to Sylvia Park. After starting the Topanga Canyon fire, the arsonist went to Santa Ana by bus and started a fire there, then stole a car and drove to Mt. Baldy and started a huge fire there. He told police that he had started fires all along the California coast.

How Many Communities Wait for Tragedy To Disclose Deficiencies in Fire Protection?

IN many communities serious deficiencies in fire protection exist which ultimately may make the headlines when revealed by a fatal or large loss fire. In most cases the public assumes that the community has provided protection adequate to make lives and property reasonably secure against fire. Individuals even are likely to resent as "alarmist" the warnings of fire officials pointing out the need for more men, modern equipment, or adequate fire alarm facilities. One outstanding chief puts it this way: "Our department is held in high public esteem but I am trying to convince our city council that we are living on our past reputation as far as our apparatus and manpower is concerned."

All too often the recommendations of fire officials that should be shouted from the housetops are buried in the musty pages of an annual report where they are "on the record" but fail to loosen municipal purse strings in the direction of improved fire protection.

The public press which will run banner headlines and shout "neglect" when tragedy does strike, usually feels that fire department deficiencies are not sufficiently newsworthy to warrant the space and sustained effort that would be needed to sell increased fire protection to the taxpayer.

Perhaps a case in point is a recent fire which took the lives of three girl students in a sorority house at Cortland State Teachers' College at Cortland, New York. According to the fire department, the fire, believed due to cigarette butts deposited in a laundry carton, spread from a laundry room up the single open stairway of the three-story wood frame structure cutting off escape of occupants before a neighbor telephoned an alarm at 1:30 A.M. The firemen had the fire out within 15 minutes but three lives were lost and eight other occupants were hospitalized. The single ladder type fire escape had been cut off by the flames.

As is often the case, criticism was heaped upon the firemen who accordingly prepared the statement appearing on this page to clarify the situation in the public mind.

PERHAPS, among the lessons for the fire service in such an occurrence is the reminder that our fire prevention message must include a constant "life and death" warning to our communities. This may not be popular, but the responsibility for fire trap conditions must be pressed upon those who fail to provide safe exits, fire detection and alarm equipment, and automatic sprinkler protection for places of life hazard such as dormitory structures.

For its part, the fire department can give maximum protection by treating every "still" alarm involving a fire in a building as a serious occurrence, particularly at night, and send its full first alarm response of both men and apparatus.

Where there are paid apparatus drivers on duty supplemented by call or volunteer firemen, considerable time can be saved by immediately sounding a coded signal on an air horn to indicate the location to which the apparatus is responding. Thus the paid men can receive prompt assistance from volunteers responding directly to the fire.

Long experience has shown that it is not safe to send men to make investigations of fire calls without sufficient manpower and equipment to control any fire that may endanger life and property. Fire does not wait!

TO THE PEOPLE OF THE CITY OF CORTLAND

We, the members of the Cortland Permanent Firemen's Association, have personally received several criticisms and have heard other rumors concerning ourselves and acts from several persons in the community concerning the recent fire and loss of life at the Arethusa House in the City. The general trend of these have been as follows:

1. Why were there not more firemen at the fire when the apparatus first arrived?
2. Why were the trucks late in arriving?
3. Why were ladders not emplaced sooner and girls removed at once?

The purpose of this letter is to acquaint the people of the City with this group's problems when a fire occurs and what occurred in this instance.

The permanent paid firemen consist of twelve men for the City. These are divided into two shifts of six men each. The shifts are for day duty and night duty, and one man from each shift is off duty during duty hours one day a week. Thus there are five men actually on duty at the station at all times to answer calls. In the event that a fire is reported by phone, two men take two trucks to the location of the fire. Upon arriving it is the duty of one of these to size up the situation and place a general alarm if necessary. The other man, in the meantime, is laying and connecting hose and doing anything that appears necessary. When a general alarm is sounded at the station, the remaining three men bring two more trucks to the scene of the fire, and the volunteer firemen, if they have heard the signal, also go to the scene. From the time of the general alarm there is no personnel at the station, and it takes from five to ten minutes for the off duty shift to arrive, if they too have heard the signal. The permanent firemen on the off duty shift report to the station, where one truck remains, for instructions or other calls.

It can be seen from the foregoing that only two men are at the fire for about five minutes, depending on the distance from the station, before any other aid arrives, and that five men are there for about five minutes before the volunteers can arrive, and that these five are expected to lay and connect hose, place equipment, fight the fire, attempt rescue work and other necessary duties.

At the recent fire mentioned, a phone call was received at the station at 1:30 A.M., November 21, 1948, reporting the fire; two drivers and two trucks left within a minute, together with two bunkers, and were entering the street when a second call was received reporting the same fire. From the time of the first call until the call for a general alarm was received and the first signal had completely sounded, three minutes elapsed. During this three minutes the trucks left the station, arrived, one man had entered the building with mask, located the fire, found a girl on the second floor overcome by heat and smoke, carried her to safety and aided in getting other occupants out of the building, while the other men, called in the general alarm, laid and connected hose and placed ladders. The other three men on duty and trucks arrived within this three minute period also, and volunteer firemen began arriving within five to ten minutes after the general alarm sounded. The fire was under control by 1:50 A.M. and completely out by 2:00 A.M. The damage to the building and furnishings was small when considering the condition, type of building and start the fire had.

The fact that lives were lost as a result of the smoke and heat from the fire is apparently the reason for the criticism and rumors of inefficiency and negligence which are circulating. However, when considering that so few men are available in the first five to ten minutes of such a fire, and they can only carry out their duties as quickly as possible, as well as meet all emergencies that arise, it is fortunate that there were no more fatalities than occurred. Certainly the aid of volunteer bystanders and students, when only four firemen and then seven of us were there, contributed greatly to the saving of lives, for which we praise and thank them.

We do not discuss the natural panic and hysteria which occupants of a burning building have to contend with so that they forget instructions, drills and common sense in their hurry to escape. But when without considering this, would it not be better to have sufficient trained personnel on duty at all times other than just enough to drive four of the five trucks? In the instance at hand, three or four men in addition to the four who arrived first, with proper masks and trained, could certainly have effected quicker rescues and avoided several injuries.

Just criticism is proper, instructive and certainly welcomed on our part; however, in this instance we have felt such was not the case, and therefore take this opportunity to bring these facts to your attention.

Cortland Permanent Firemen's Association

By C. B. Gallagher, Sec.-Treas.

Reprinted from Syracuse Post-Standard

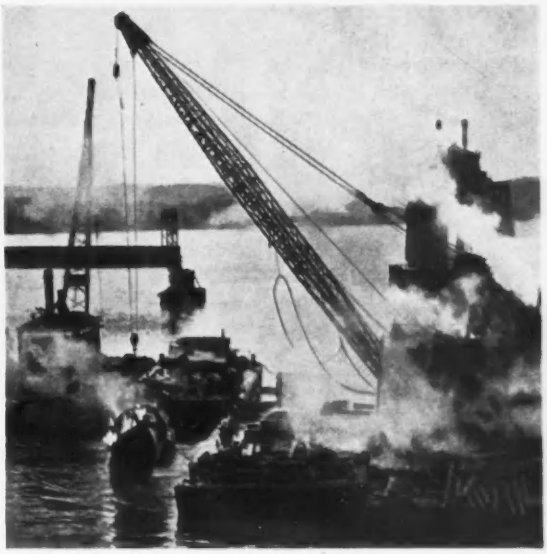
HOW TO EXTINGUISH A BOAT FIRE

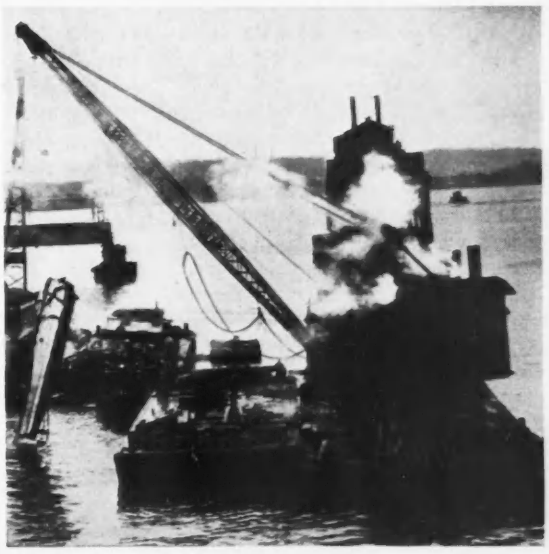
Washington Post Photos

1. Get a Crane. Fire broke out aboard the 36 ft. wooden launch *Katy* as workmen prepared to lower it from a barge after a welding job. So the crane operator lowered the blazing craft to the water.

2. Dunk the Boat. Crane operator continued to lower the boat until it was thoroughly dunked. When the fireboat arrived there was little for it to do.

3. Hang It Up to Dry. Fire out, the crane lifted the launch clear of the river and let the water drain out. The fire was blamed on ignition of gasoline in the bilge The launch was used to carry workmen to a bridge construction job on the Potomac River.





FIREMEN'S HELMETS PREVENT INJURIES

A HANDY FORCIBLE ENTRY TOOL

PRIVATE Herlihy of the Brockton, Massachusetts, Fire Department, demonstrates the L & D forcible entry bar and hammer designed by NFPA member Chief Lawrence Lynch and Master Mechanic Robert Duprey of that department.

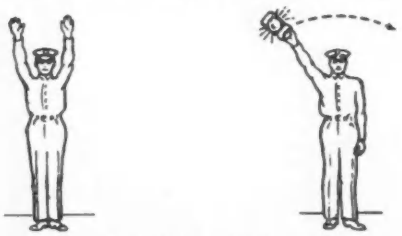
The bar is carried on Squad Company A which responds to all box alarms in the city and which frequently carried out forcible entry work while engine companies are laying lines. It is made of special high strength alloy steel and combines a claw tool and a hammer. These may be used either as a single tool or as separate tools. The hammer and the claw ends are readily detached by a simple swivel arrangement smiliar in principle to the connections used for installing light bulbs in automobiles.

The Brockton firemen testify to the tool's efficiency in dealing with particularly stubborn doors and windows.

PROMPT ALARMS SMALLER LOSSES

Calling for Water!

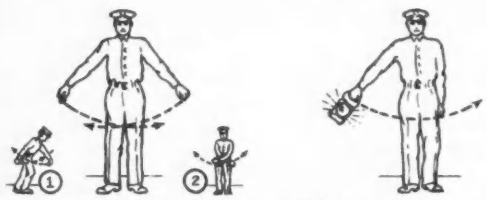
Hand and Electric Lantern Signals for Raising and Lowering Pump Pressures



Turn Water into Line.

Both arms raised vertically from shoulders, palms to front, held stationary.

Swing lantern horizontally above head.



Shut Water Off in Line.

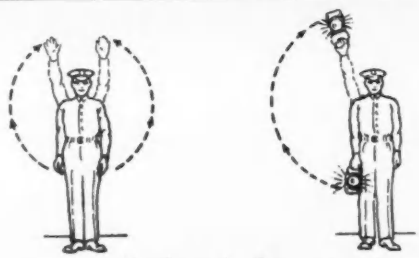
Both arms extended downward at 45 degree angle, cross arms in front of body, swing back and repeat.

One arm extended downward at 45 degree angle Swing across in front of body, swing back and repeat.

Pick Up

Describe circle with one arm - in front of body.

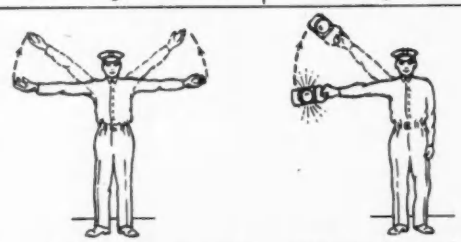
Describe circles with lantern in front of body.



Hydrant Pressure

Swing both arms from sides vertically over head.

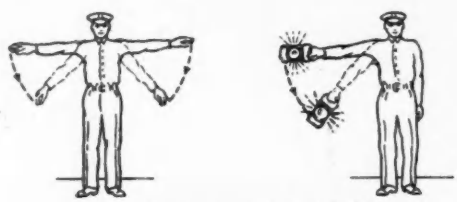
Swing lantern from side vertically over head.



Increase Pressure 20 to 25 Pounds

Extend arms horizontally, palms up, swing arms up to 45 degree angle. Swing back and repeat.

One hand extended horizontally with lantern Swing up to 45 degree angle. Swing back and repeat.



Lower Pressure 20 to 25 Pounds

Extend arms horizontally, palms down, Swing arms down to 45 degree angle. Swing back and repeat.

One hand extended horizontally with lantern. Swing down to 45 degree angle. Swing back and repeat.

A LOT of lost time and confusion on the fire ground can be avoided by simple uniform hand and electric lantern signals. The signals shown on this page have been recommended for a number of years and where fire departments have not established any set local practice, these signals can be used as the basis of visual fire ground communications.

The increased use of masks which restrict spoken communications makes the use of hand and light signals of more importance in calling for water or in ordering changes in pressure.

Experience has shown that for practical advantage on the fire ground the signals must be easily understood and yet not subject to misunderstanding. Danger may result if a pump operator should mistake a signal for reduced pressure for a complete shut-down of the line. The signals shown here adopt a symbolism intended to suggest the action wanted. For example, swinging the arms upward indicates an increase in pressure. Swinging the arms downward indicates a reduction of pressure.

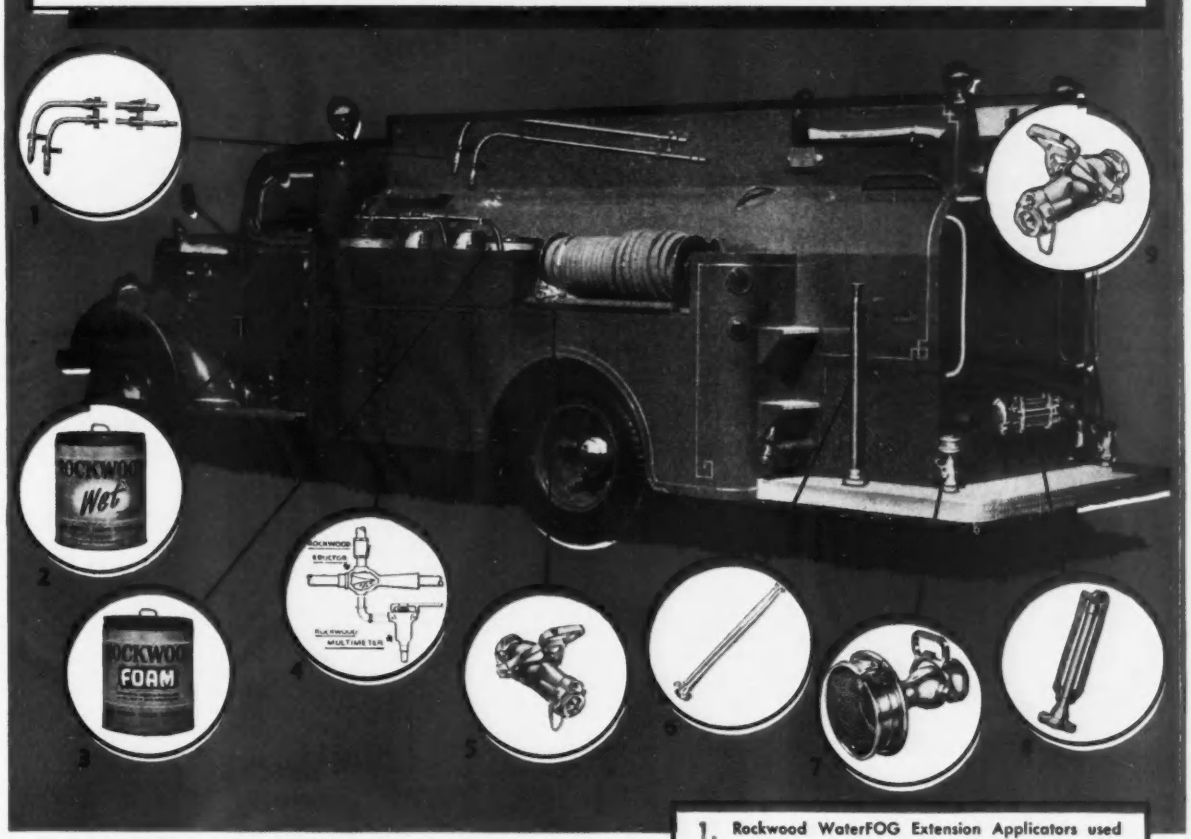
When increasing or decreasing nozzle pressure, a change of 10 to 15 pounds at the nozzle is generally satisfactory to the hose crew. However, to get this change of nozzle pressure with lines of average length say, 300 to 250 ft., it is usually necessary to adjust the pump pressure by 20 to 25 pounds to make a change of 10 or more pounds at the nozzle. This is because the change in pressure results in a change in gpm flow and a consequent change in the friction loss in the hose.

For example, a hose crew finds that 60 pounds nozzle pressure with a $1\frac{1}{8}$-in. tip is too great for comfortable operation in their particular location. They signal for a reduction of pressure, desiring a stream in the range of 45 to 50 pounds. With a 300 ft. line and 60 pound nozzle pressure there is 60 pounds friction loss in the hose. By reducing the pump pressure from 120 to 95 pounds they get 47 pounds nozzle pressure.

Some fire departments may wish to supplement the signals shown here by others intended to call for special equipment or to indicate which company desires to have the pressure changed on their line. However, the essential factor in most fire fighting jobs is to get water on the fire promptly at a satisfactory pressure. These signals are designed to help expedite that job.

HOW TO S-T-R-E-T-C-H WATER

in places where there are no HYDRANT SYSTEMS



NEW "HOLDEN FIRE COMBAT UNIT" CARRIES WATER TO RURAL FIRES. MAKES WATER GO FARTHER WITH ROCKWOOD WATERFOG AND FOGFOAM EQUIPMENT COMBINED WITH ROCKWOOD "WET" AND FOAM LIQUID.

Rural areas can now obtain modern fire protection that has been available heretofore only in large cities and towns equipped with their own hydrant systems. The "Holden Combat Unit" makes this possible.

This new unit featured in a recent issue of Reader's Digest, carries 800 gallons of water to a fire. It has a pump with the capacity of 120 g.p.m. at 180 p.s.i., 1600 feet of 1½" CRL hose and 2 reels each with 200 feet of ¾" booster hose.

The designers of this advanced type of rural fire fighting truck have had the foresight to outfit their trucks with the first word in Rockwood fire fighting products which were designed to get the maximum extinguishing action out of every drop of water carried by the truck.

Rockwood products are illustrated above and described in the next column.

Complete literature and prices will be sent upon request.

1. Rockwood WaterFOG Extension Applicators used with type SG-48 Rockwood WaterFOG Nozzles.
2. Rockwood "wet"— a wetting agent designed for fire fighting — makes water penetrate faster and farther into burning materials.
3. Rockwood Foam Liquid.
4. Rockwood Across-the-pump proportioner for automatically feeding wetting agent or Foam liquid into hose lines.
5. Rockwood WaterFOG Nozzle (type SG-48) for ¾" booster hose — increases the fire extinguishing action of water.
6. Rockwood Foam shaper produces a solid Foam stream discharge when used with 1½" type FFF Rockwood FogFOAM Nozzle.
7. Type FFF Rockwood FogFOAM Nozzle generates a mixture of water and Rockwood Foam Liquid into a FogFOAM discharge which extinguishes gasoline fires.
8. New type Rockwood cellar and attic pipe makes water more efficient in fighting fires in blind spaces.
9. Lightweight Rockwood WaterFOG Nozzles (type SG-48) are used on the two 1½" hose lines to help stretch the water.

ROCKWOOD

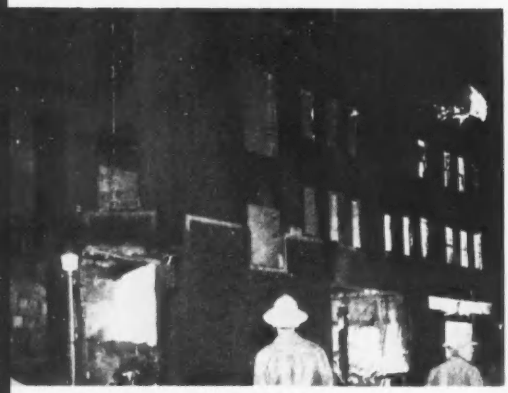
ROCKWOOD SPRINKLER COMPANY

88 HARLOW STREET WORCESTER 5, MASSACHUSETTS

Specialists in Fire Protection Engineering, Equipment and Installation since 1907

The Never Ending Ba

Chicago, Ill., Dec. 10, 1948. *Wide World*
The old Hubbard Hotel on North Clark Street was damaged in this early morning fire which drove many occupants out into 16° temperature. Note the heavy streams from water tower and squad truck turrets, with large capacity pumpers in the foreground supplying lines of hose. Loss $60,000.



Malad, Idaho, Nov. 13, 1948. *Glen Perrins*
Fire started in a small confectionary establishment in the basement of a three-story brick and frame hotel. Operator in the shop first tried to extinguish the fire and then ran to the public fire siren switch. Meanwhile 35 roomers escaped from the hotel. Four fire departments responded but water supplies were too meager for effective fire fighting.

Vancouver, B. C., Dec. 15, 1948. *Wide World*
This fire which swept from the basement up open stair and elevator shafts destroyed an unsprinklered wood-frame sash and door factory causing $70,000 loss, before being controlled by 14 fire companies using 15 hose streams. A workman on the top floor noticed smoke for 30 minutes but did not investigate before a neighboring watchman gave the alarm.

Memphis, Tenn., Dec. 15, 1948. *Acme*
One man was killed and another missing after an explosion and fire aboard an empty oil barge used as a loading dock at an oil refinery. It is reported that sparks from a cutting torch ignited vapors in the hold. An adjacent tanker containing 10,000 gallons of crude oil ignited, burned itself from its moorings, and drifted down the river where it set fire to the docks of another oil company.

Dearborn, Mich., Dec. 15, 1948. *Wide World*
Fire in the Ford Motor Company plant involved assembly lines of Mercury and Ford automobiles and caused a loss of at least $500,000. Fire started on an unsprinklered balcony of an upholstery storage department and spread for 600 ft. through the plant before being controlled by sprinklers and public and private fire department hose streams. The fire stopped production of both Mercury and Ford cars for several days and 3800 workers were laid off. Firemen rescued nine trapped employees while 300 others escaped the fire area unaided.

Reddington, Ind., Nov. 19, 1948. *Acme*
Six buildings in the pumping station area for the "Big Inch" natural gas pipe line were demolished by two explosions of unreported cause. A spectacular fire resulted which caused a loss which may exceed $1,000,000.

Brighton, N. Y., Nov. 30, 1948. *Acme*
This apartment block fire in a Roch
thirteen families and caused damage
This picture taken from a helicopter s
a fire ground commander obtaining an
of a large fire fighting operation where
for fire ground reconnaissance.

Plattsburg, N. Y., Dec. 11, 1948. *Acme*
Fire occurred in a roll paper storage r
lieved due to sparks from an electric
and stock. Employees gave an alarm
after initial efforts to control the fire
volunteer firemen were aided by neigh
while the flames were chiefly confined
number of paper machines were damag
not cut off by fire walls. Loss $425,

Santiago, Chile, Dec. 7, 1948. *Acme*
This fire destroyed the School of Med
Chile, causing $3,000,000 damage. Six
50,000 volume library was destroyed
organized in a two year project by L
of the Rockefeller Foundation.

; Battle Against Fire!

1948. *Acme*
e in a Rochester suburb drove out
sed damage estimated at $125,000.
helicopter suggests the possibility of
obtaining an excellent bird's eye view
eration where such craft are available
ance.

, 1948. *Acme*
per storage room of a paper mill, be-
an electric crane igniting paper dust
ve an alarm by box and phone shortly
ntrol the fire failed. Local paid and
ided by neighboring departments, and
iefly confined to the storage section a
were damaged in an adjoining section
Loss $425,000.

948. *Acme*
chool of Medicine at the University of
damage. Sixty per cent of the school's
s destroyed. The library had been re-
project by Librarian Edward Heilinger
ation.

Garden City, L. I., N. Y., Dec. 11, 1948. *Acme*
Police assist first arriving fire company in running booster line at this dwelling fire which suffocated a 14 year old girl sleeping upstairs. The child's mother escaped the blaze which broke out in the living room.

Portland, Ore., Nov. 30, 1948. *Wide World*
This blaze followed an explosion which occurred in the Portland Dock Commission's office when employee turned on a basement light switch while looking for a gas leak. The employee was badly burned and shocked. Only the concrete record vault survived the explosion and fire which caused $90,000 loss.

Logan, Utah, Nov. 9, 1948. *Glen Perrins*
A "back draft" or hot air explosion gave first notification of this early morning fire which destroyed a 3-story brick-walled, wood-joisted department store. The fire had involved the entire unsprinklered building through unprotected openings when the alarm was given. Firemen used 10 hose streams to protect surrounding property. Loss: $206,000.

Toronto, Ont., Dec. 15, 1948. *Wide World*
Firemen shown assisting a woman resident down a ladder at a rooming house fire which took four lives and injured eight other occupants.

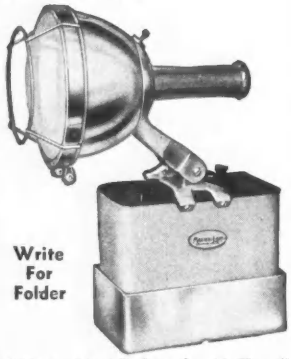
Spencerport, N. Y., Dec. 17, 1948. *Wide World*
Fire blamed on an overheated furnace considerably damaged the fire station and five pieces of equipment. Loss estimated at $75,000. This latest of a long list of fire station fires again emphasizes the need for fire-safe construction in fire department buildings and fire detection and alarm equipment particularly for stations of volunteer fire companies where fire may destroy a community's fire equipment before being discovered.

Freemont, Ohio, Dec. 7, 1948. *Wide World*
A department store and four other shops in the block were destroyed in a $750,000 fire of undetermined origin which also gutted a new fire resistive store building. A fireman working from a ladder was killed when struck on the head by a nozzle from a charged line. Nine outside fire departments responded with 13 pumpers and an aerial ladder from Toledo is credited with a major role in checking the spread of the fire with a ladder pipe. The city water supply was dangerously taxed by this fire and the elevated water storage was depleted.

CARPENTER LIGHTS

HIGH POWER PORTALITE

The finest dry battery portable light made. Mile range. Powerful searchlight beam for 8 to 10 continuous hours. Instantly ready for any fire. Diameter 6". Size 14" high x 10" x 6". Only 9 lbs.



Write For Folder

"Master-Light-Makers for 34 Years"

CARPENTER MFG. CO.

168 MASTER-LIGHT BLDG.
BOSTON - 45 -
SOMERVILLE, MASS.

Captain Kenneth J. Powell
LEWISTOWN, PENNSYLVANIA

"Just a line to let you know that your Hose Dryer has been doing very well. The City Hook & Ladder Company also uses our Dryer and likes it very much."

CIRCUL-AIR

FIRE HOSE DRYER

Makes good hose last longer, prevents mildew and rot. Keeps all hose in service, saves time, man-hours, and valuable space.

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575 East Milwaukee Street
DETROIT 2 ✦ MICHIGAN

Special Problems In Civil Defense

In November the U. S. Office of Civil Defense Planning issued a report, "Civil Defense for National Security." The report, in 21 major sections, devoted one section to "Fire Services in the Civil Defense Program." In the preparation of this section, the OCDP was assisted by Chief Frank C. McAuliffe, and ideas were also obtained from an advisory panel of eight fire chiefs and 13 other fire experts. Chief McAuliffe is in charge of the Chicago Insurance Patrol, a director of the NFPA, and, during the period he worked on the report, president of the International Association of Fire Chiefs. The subject matter of the report on the Fire Services and on other features of civil defense represents a suggested plan. No one is committed to any detail until it is acted on by the Congress. Carl Dreesen, former battalion chief of the New York Fire Department and a member of the NFPA, has succeeded Chief McAuliffe, at OCDP, as Fire Fighting Engineer.

Part of the text of "Fire Services in the Civil Defense Program" appeared in January 1949 FIREMEN, *and following are additional extracts. For the complete text get the 300-page report "Civil Defense for National Security" by sending $1.00 to the Superintendent of Documents, Washington 25, D. C.*

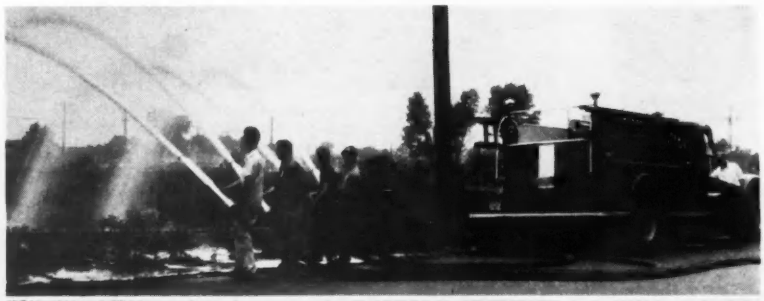
Water Supplies

LITTLE progress has been made in the past seven or eight years to institute necessary water system improvements due to shortages of materials. As materials are now available, consideration should now be given by municipalities to extend and renovate public water systems.

Fire officers and public works officials should make an exhaustive study of the ways and means that England and Germany provided for static water supplies. These countries installed tanks and utilized the basements of bombed-out buildings which were cleaned, waterproofed and filled with water, thus providing a wide dispersal of essential reservoirs. In addition, they laid out dry pipe lines above ground from rivers to various sections remote from static supplies. These pipe lines were valved at frequent intervals and were easily repaired when damaged.

Fire officers should chart their streams, lakes, ponds and other avail-

Foam Truck for Venezuela Oil Fields



This new foam fire fighting truck has been built by the National Foam System, Inc. of Philadelphia for the Mene Grande Oil Company, a Gulf Oil Corporation subsidiary, for protection of the Mene Grande oil producing fields and pipe line pumping stations in eastern Venezuela. This truck produces 4,800 gallons of foam per minute, 1200 gpm through each of four 2½-in. discharge lines. Sufficient "Aer-o-foam" liquid is carried to permit 26 minutes of continuous discharge.

able water supplies. They should also arrange for ramps or other means to conveniently bring their pumpers to such sources of supply. In addition, they should train their men to become adept in placing pumpers in line with fireboats whenever possible and practicable. They should encourage large industries to provide emergency static supplies which in many instances are recognized as practical and economical for peacetime fire protection requirements.

In this connection, the sprinkler systems that existed in London during the last war proved their worth many times by extinguishing fires caused by incendiaries, and others that resulted from ordinary causes when the city was under attack. The use of sprinkler equipment in buildings with a high potential fire rating will pay dividends in time of peace and serve well in the event of war.

Fire officers should have a knowledge of the location of tank trucks in their vicinity and make arrangements for the transportation of water for extinguishing purposes under certain conditions, and plan for transforming some trucks for hauling water to forces in the field.

Spacing of Buildings

IN many cities there are planning boards, zoning and building officials whose duties are to control the orderly and safe development and growth of the city. The principles involved are well established and recognized in legislation in most of the states. Among their functions are the limiting of conflagration conditions and providing for the greater convenience of the people living in the city. To date, however, these agencies have not had to give consideration to the vulnerability of the city when under attack by high explosive bombs, incendiaries or other weapons of war.

As a part of civil defense planning these agencies should give attention to measures for the purpose of making the city and its population less likely to be destroyed in war. This does not mean that buildings would be immediately torn down, but it is only logical and prudent that no new buildings be erected in such a way as to increase the wartime dangers. The normal fire dangers in the pattern of buildings in a city have been appraised by fire experts, and conflagration breeding areas have been defined. In a good many cases it would be practical to remove these buildings which constitute known fire

Continued on page 24

✔ VICTIMS RESCUED
✔ FIRES OUT
✔ FIREMEN ALIVE and WELL

thanks to Chiefs who Specify

"Scott Air-Pak"

Fire Departments using *Scott Air-Pak* build enviable records for life and property conservation!

Scott *Air-Pak* Back-Pak (above) — ½ hour minimum duration at extreme exertion. Weight as worn 29½ lbs. B. of M. approval No. 1308.

Fire Departments throughout the nation safely rely on Scott *Air-Pak* to locate and save persons trapped by smoke. Property loss, too, is reduced as fire fighters, safely protected from dense smoke and fumes, locate the fire and fight it at its source.

Scott *Air-Pak* is the *safe, proven* way to fight fires!

OVER 1000 FIRE DEPARTMENTS NOW USING *Scott Air-Pak*

Over 1000 municipal and industrial fire departments use Scott *Air-Pak* — proof that it is safer, more economical and completely dependable. Special *Air-Pak* features include: cool, fresh AIR (not oxygen); demand-type regulator that can't be "outbreathed"; full-view mask permitting conversation.

FREE INFORMATION BOOKLET

Get the full story of Scott *Air-Pak* equipment—also arrangements for FREE DEMONSTRATION. Write for *Bulletin No. 510* and name of nearest distributor—today!

ESTABLISHED IN 1932
Scott
FOR SAFETY - FOR SERVICE

Departments now using Air-Paks send for free wall chart showing construction details.

SAFETY EQUIPMENT DIVISION

SCOTT AVIATION CORP.

236 ERIE ST. LANCASTER, N. Y.

Membership Report

NATIONAL FIRE PROTECTION ASSOCIATION, INTERNATIONAL

ASSOCIATE MEMBERSHIP

VOLUNTEER FIRE COMPANY SECTION

($12.50 annual dues) Eligible:
(1) all bona fide volunteer fire organizations in any community.
(2) all fire departments and companies in communities of less than 25,000 population.
(3) all industrial fire brigades.

Member companies receive ten copies of FIREMEN magazine each month, mailed to the homes of individual firemen. Beyond the ten, additional copies of FIREMEN cost $1 per year.

Volunteer Fire Company Section members receive at their headquarters, one copy of all publications sent to NFPA individual associate members.

INDIVIDUAL ASSOCIATE MEMBERSHIP

($12.50 annual dues) Eligible:
Individual fire departments officers, firemen, and others interested in fire safety. NFPA associate members in the fire service receive: one copy of FIREMEN magazine monthly, the NFPA Quarterly, the monthly News Letter, technical standards, popular bulletins and posters.

All associate members have one vote in Association affairs.

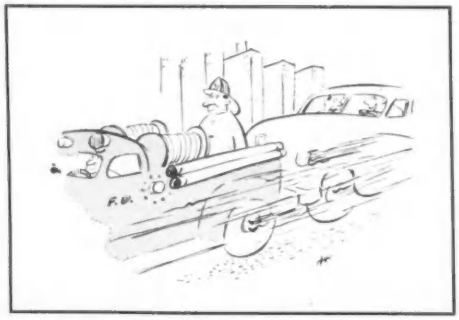
FIREMEN MAGAZINE is published for the benefit of the fire service members of the National Fire Protection Association. Volunteer fire departments, individual volunteer fire companies and industrial fire brigades may enroll in the Volunteer Fire Company Section. Individual firemen, paid or volunteer, may enroll as regular associate members of the NFPA.

Firemen is primarily intended to foster the exchange of ideas as well as fire experience between fire departments. All too often an interesting occurence is confined to its locality when it should be given widespread attention. If you know some interesting development in fire extinguishment, equipment, prevention, or organization, send it to FIREMEN. The doings of large and small departments are considered of equal merit.

The growth of the Section and FIREMEN has, in a large measure, been dependent upon the interest and enthusiasm of volunteer and call firemen throughout the United States and Canada. Every member should consider himself as a part of non-member company to enroll. More extensive membership and greater circulation (we are now printing 26,000 copies monthly) should produce a better and larger publication.

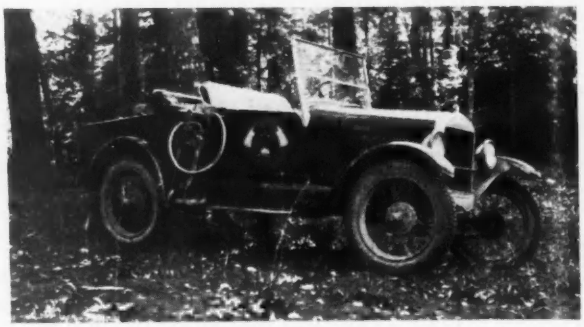
New members of the Section are:

Arbor Hose Co. No. 1, Inc., Dunellen, N. J.
Bixby Fire Dept., Bixby, Okla.
Caterpiller Tractor Co., Peoria 8, Ill.
Chippewa Vol. Fire Dept., Beaver Falls, Pa.
Dauphin Vol. Fire Dept., Dauphin, Man., Can.
Grand River Vol. Fire Dept., Grand River, Ohio
Harsen Island Vol. Fire Depart., San Sauci, Mich.
Iverness Vol. Fire Dept., Iverness, Calif.
LaMarque Vol. Fire Dept., LaMarque, Tex.
Stratford Vol. Fire Co. No. 3, Stratford, Conn.
The Turner Brass Works, Sycamore, Ill.
West Liberty Vol. Fire Co., West Liberty, Ohio
Woodbeck Landing Fire Dept., Gowen, Mich.



"we might as well go to the fire—
our bumpers are locked."

★ ★ ★



Chief Weiler's Model T Ford fire patrol car among the white pines of Ottawa National Forest in the upper peninsula of Michigan.

A ONE MAN FIRE PATROL

The feats of fire fighters in the larger cities and towns with their costly and spectacular equipment have been well publicized but all too often the story of fire control in the big woods is unheralded. The year-upon-year devotion to duty of many rural fire fighters is perhaps exemplified by the story of Charles H. Weiler, a warden in the Ottawa National Forest at Robison Lake on the upper peninsula of Michigan.

Chief Weiler has equipped his 1927 Model T Ford as a fire fighting car and serves as a one-man fire department and fire prevention patrol in the areas of four townships coming within the boundaries of the National Forest.

Chief Weiler has lived on the shores of Robison Lake near Trout Creek winter and summer for 23 years and he is much concerned about the serious hazard to the forest caused by careless motorists who toss out lighted cigarettes while travelling through forest lands. He found 1948 a bad year for this form of indifference. During Fire Prevention Week he arrested a man careless enough to burn bush without a permit despite extremely dry weather.

Largely due to Chief Weiler's fire prevention efforts there have been but three building fires in lakeside cabins during the 23 years and he successfully extinguished two of these single handed.

The old Model T has a high compression head and "double low gear" and according to Chief Weiler will weather 10 inches of mud or 18 inches of snow.

Equipment carried varies with the season. The dry season inventory is something like the following:

1 pair 8-power binoculars	2 6-lb. axes, 1 4-lb. splitting maul
1 first aid kit	40 ft. ⅜-in. dia. rope
2 red flags	4 water pails
1 safety carbide lantern	1 12 gpm hand pump, 50 ft. ½-in. hose
1 siren, 1 flashlight	1 force pump, 900–1000 gal. per hr.
2 cook pots and food	200 ft. 1½-in. linen hose
1 tool kit for car, 1 saw	1 horse blanket and tarpaulin
soap and towels	1–2 gals. of drinking water
2–4 shovels	1 fire road map of 10 sections of land

In winter the equipment includes:

1 fire axe, 2 water pails	1 saw
1 first aid kit, 1 flashlight	1 hand pump
1 snow shovel	40 ft. ⅜-in. dia. rope
1 pair snow shoes	50 ft. ½-in. hose for chimney fires

RECENT NFPA PUBLICATIONS

New Standards on First Aid Fire Appliances

THE NFPA Standards for the Installation, Maintenance and Use of First Aid Fire Appliances have long been the guide as to the performance and use of various approved types of fire extinguishers. The 1948 Annual Meeting adopted amendments recommended by the NFPA Committee on Field Practice. The new edition has been published by the National Board of Fire Underwriters as their Pamphlet No. 10. Copies may be obtained without charge from the NFPA Office.

The Committee on Field Practice which had jurisdiction over these standards has been discharged and the Committee on First Aid Extinguishers has current jurisdiction.

NFPA Tank Truck Standard

DRAG chains, the time-honored clanging appendages of many tank trucks, are no longer required in the 1948 Tank Truck Standard, just released by NFPA. The recommended Standard for Tank Vehicles for Flammable Liquids, prepared by the NFPA Committee on Flammable Liquids with the cooperation of the oil industry and fire protection authorities, provides provisions for safeguarding the highway transportation of gasoline and other flammable liquids. It is anticipated that the 1948 edition, like its predecessors, will be widely used as a guide in the drafting of state and municipal regulation of the fire hazard of tank trucks.

Drag chains, formerly required, were designed to drain off static electricity. The committee now finds that drag chains are not sufficiently reliable for this purpose and accordingly specifies other measures for preventing static sparks.

The new standard restricts the size of an individual compartment of a truck delivering gasoline to service stations but imposes no overall limit on tank vehicle capacity. This is in recognition of the fact that any escape of even a small quantity of gasoline due to leaks or improper operation involves a fire or explosion hazard Accordingly, the standard specifies details of construction and operation with substantial tanks and all features of the equipment designed to minimize the likelihood of accidental escape of gasoline.

Copies of this standard are available from NFPA at 25 cents each.

"OKAY! All we need are some

INDIAN FIRE PUMPS"

That's the call you hear so often at all kinds of fires—on roofs, in partitions, in homes and buildings and grass and rubbish fires. It means the job can be handled in a few minutes with a few men and a few **INDIANS.** Clear water alone will do the work or you may use "water wetting" penetrant agents which do not harm the inside of the tanks.

Ask a fireman or forester who has used the **INDIAN** and see how much he values it. Order **NOW** and be prepared for the fire season. Send for catalog telling all about **INDIAN FIRE PUMPS.**

INDIAN FIRE PUMPS are available with Armco zinc grip steel tanks which are coated inside with asphaltic base paint or solid brass or chrome plated tanks.

Put the **INDIAN** *Sign on Every Fire!*

D. B. SMITH & CO. 406 Main St. Utica 2, N. Y.

PACIFIC COAST BRANCHES:

Hercules Equipment & Rubber Co.
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Fred E. Barnett Co.
600 Spring St.
Klamath Falls, Oregon

CANADIAN AGENTS:

Duke Equipment Co.
297 Duke St.
Montreal 5, Canada

Fleck Bros. Ltd.
110 Alexander St.
Vancouver, B. C., Canada

THE *New* **Beacon Ray Light**

Extra **VISIBILITY... from every angle**
Beacon Ray beams rotate through full 360°

Extra **STRENGTH...**
Beacon Ray emits two powerful signal beams (180° apart)

Extra **360° PROTECTION...running or parking**
Full rotation provides "area warning" regardless of vehicle position.

Federal Enterprises' new Beacon Ray Light is Extra in every respect. New through and through, this advanced design warning light is an entirely new concept in effective signalling equipment.

Your vehicle will be safer with Beacon Ray Write today for full particulars

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Formerly: FEDERAL ELECTRIC COMPANY, INC.
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TURN YOUR SPARE TIME INTO PROFITS
$84.00 A WEEK FROM 2 SALES A DAY
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THEY WANT A RANDOLPH with its panic-proof trigger action that smothers the fire instantly in a snowy blanket of carbon dioxide. No mess, no water, no damage, even to food. It evaporates without a trace.

YOU CAN QUALIFY for exclusive territory to sell the famous, nationally advertised Randolph used by leading industrial concerns everywhere.

Approved by Underwriters' Laboratories

Quick profits await those who act at once. Four sales a day net $168.00 a week. Write today for full or part-time plan, territories, demonstration kit, etc. Don't delay.

RANDOLPH LABORATORIES, Inc.
5 EAST KINZIE STREET CHICAGO 11, ILLINOIS

Report on Officers' Conference at Alameda, California

THE Bureau of Trade and Industrial Education of the California State Department of Education, Sacramento, has issued an attractive 25-page report of officers' conferences conducted last year for the Alameda Fire Department, the Alameda Naval Air Base Fire Department and the Piedmont Fire Department. The conferences were held over a period of two weeks with members of alternate platoons attending during on-duty periods. The conferences developed information on such problems as, What a Company Officer Does; What a Company Officer Must Have Knowledge of; What Constitutes Good Leadership; Actions which Require Discipline and Maintenance of Discipline; What Can be Done to Develop Morale and Similar Related Matters. The conference leader was Thomas S. Ward, Supervisor of Fire Training, Bureau of Trade and Industrial Education, and a member of the NFPA Committee on Firemen's Training.

Graduate Courses in Fire Protection Engineering at New York University

GRADUATE courses in Fire Protection Engineering and Safety Engineering are being offered at New York University. NFPA member Edward J. Kehoe of the U. S. Atomic Energy Commission is conducting the Fire Protection Engineering Course and the Safety Engineering Course is conducted by Henry A. Cozzens, Jr., Industrial Consultant. Registration will be held Februrary 3 and 4, 6:30 to 8:30 at South Hall, University Heights, New York City. These are advance courses primarily designed to make graduates fire and safety conscious in the practice of engineering. Further information may be obtained from Assistant Dean, Graduate Division, College of Engineering, New York University.

Bulletin on Aircraft Rescue and Fire Fighting Equipment for Aerodromes

THE NFPA Committee on Aviation and Airport Fire Protection has prepared a 24-page illustrated bulletin, 8½ x 11 in., $1.50 per copy, containing recommendations for aircraft rescue and fire fighting equipment for aerodromes. This bulletin includes recommendations as to minimum quantities of extinguishing agents, minimum rates of discharge, and maximum periods of discharge, for aircraft classified by gross weight. It includes suggested standards for equip-

ment of various types of aircraft rescue or crash trucks, depending upon the weight classification of planes to be protected.

Any community considering installation of airport fire protection equipment will find the bulletin essential in making an evaluation of the equipment requirements and for further information should consult NFPA Engineer George H. Tryon, Secretary of the Committee.

Kentucky Fire School Boasts High Attendance Ratio

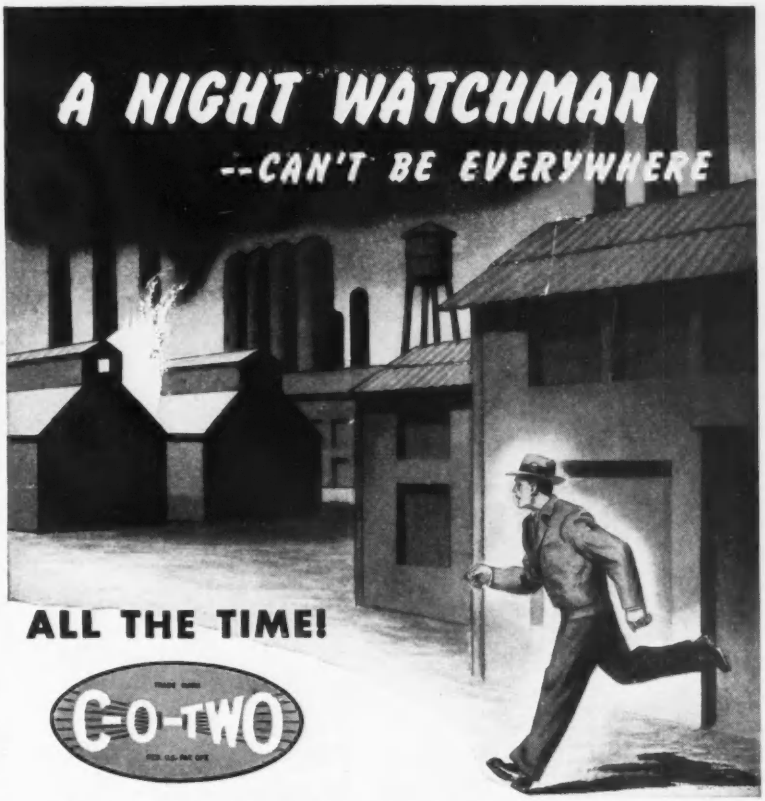
CAPTAIN V. A. Beam, Coordinator Firemen's Training, points out that out of 215 fire departments recognized by the Kentucky Inspection Bureau, there are 106 departments represented at the 1948 Fire School at the University of Kentucky. This attendance of nearly 50 percent is believed to be something of a record for other states to shoot at. In addition, approximately 50 percent of the fire departments in the area served by the fire schools of the Western Kentucky Area Association, attended the regional school held last May.

New Fire Truck Encounters Blaze on Delivery Trip

ENGINEER G. C. Badger of the Grinnell Company of the Pacific reports an interesting situation during a large fire at Livermore, California, during November. Unexpected aid came from Fireman George Campbell of Oakdale, who was delivering a new fire engine to his home town and passing through Livermore at the height of the blaze stopped to give assistance. The fire was confined to a ballroom housing a skating rink, grocery and apartments.

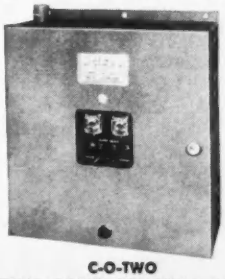
Tentative Interim Amendments of the 1947 National Electrical Code

THE NFPA has issued a 10-page pamphlet containing tentative interim amendments and interpretations of the 1947 Edition of the National Electrical Code. This publication, available on request, includes amendments and interpretations of the code up to December 1, 1948. While these amendments and interpretations have tentative status under NFPA procedure, they are subject to review and final approval before incorporation in the next edition of the code. Included in the interpretations are rulings on 38 specific questions, such as whether or not housing projects with central laundry facilities require 3-pole receptacles for laundry equipment in individual apartments.



Let C-O-TWO safeguard your property from fire, even if you have a night watchman on duty. The new C-O-TWO Combination Smoke Detecting and Fire Extinguishing System is a round-the-clock automatic fire watchman. The first trace of smoke in a protected area is drawn through pipes to the smoke detecting cabinet. Immediately an alarm sounds and fast, clean carbon dioxide gas fully floods the stricken area . . . the fire is out before it has a chance to spread and cause extensive damage.

C-O-TWO is non-damaging, non-conducting, non-corrosive and non-contaminating. It is especially suited for electrical equipment enclosures, flammable liquid storerooms and processing areas, record vaults, pump rooms or any other area where a fire hazard exists. C-O-TWO Fire Protection Equipment is designed for quick, positive action the instant fire strikes.



C-O-TWO
INDUSTRIAL SMOKE DETECTING CABINET

Let an expert C-O-TWO Fire Protection Engineer advise you on your fire protection needs now, before fire strikes. Remember . . . tomorrow may be too late. Write us today for your free copy of the booklet, "Kills Fire — Saves Life."

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1947 American-LaFrance-Foamite
500 Gallon Pumper with
350 Gallon Booster Tank
Fully Equipped

For details write to

East End Volunteer Fire Co., Inc.
Conklin St.
East Farmingdale, New York

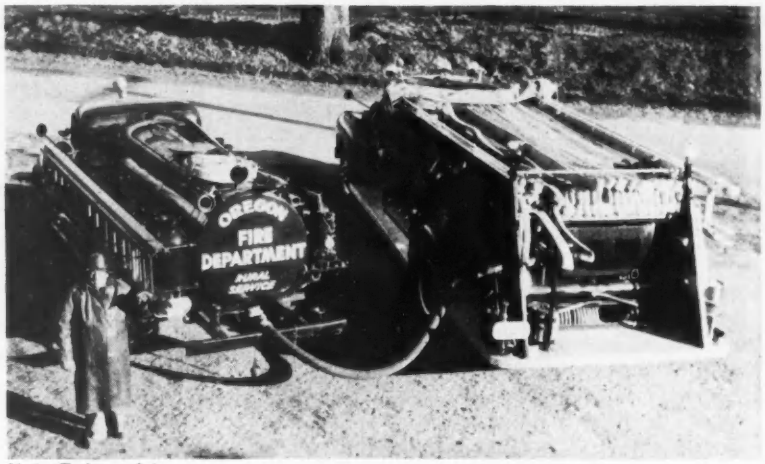
"Churches are Burning"

Attractive and well illustrated, this two color 40-page pamphlet has been prepared by the NFPA to guide church officials and others charged with the duty of protecting churches from fire.

Available from the NFPA, 60 Batterymarch St., Boston 10, Mass., at $1.00 each.

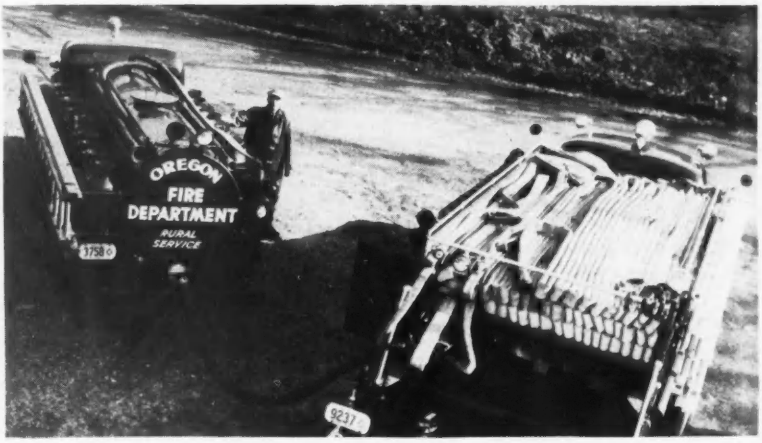
Teamwork with Tank Trucks at Rural Fires

The January issue of FIREMEN *described the rural fire protection equipment at Oregon, Wisconsin. Below are additional photographs of how the two Oregon fire department tank trucks operate as a rural fire fighting team.*

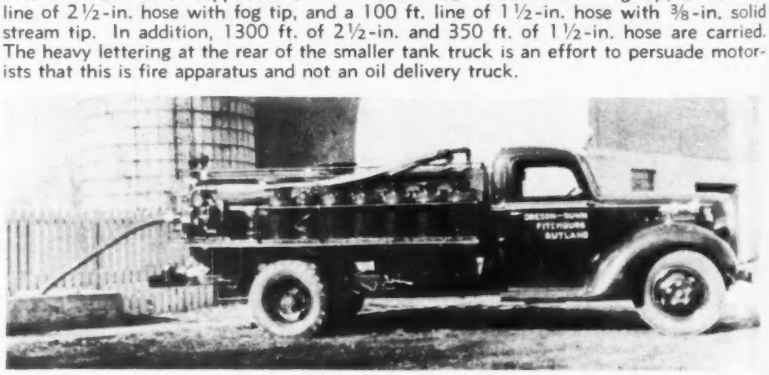


Norton T. Ames, photos

The 896 gallon tank truck at right supplies the first streams at a rural fire. Later, as convenient, the 790 gallon tank at left, replenishes the first truck and then goes off for more water. The operation is conducted without interruption of hose streams. There are two valved openings on the suction side of the pump on the big truck.



This shows the hose arrangement on the big tank truck, usually stationed close to a fire. A water thief supplies a 50 ft. line of 1½-in. hose with fog tip, a 100 ft. line of 2½-in. hose with fog tip, and a 100 ft. line of 1½-in. hose with ⅜-in. solid stream tip. In addition, 1300 ft. of 2½-in. and 350 ft. of 1½-in. hose are carried. The heavy lettering at the rear of the smaller tank truck is an effort to persuade motorists that this is fire apparatus and not an oil delivery truck.



After replenishing the big tank truck at the fire, the smaller truck (790 gallons) is refilled in about four minutes by pumping from a farm stock tank or other available supply. The centrifugal pump powered by an air-cooled engine is mounted on the right deck and connected to the tank by a short length of 2½-in hose. The pump, weighing 140 lbs., is made portable by loosening one hand operated bolt.

The Long Beach Plan of Inspection

Continued from page 7

He then telephones the manager or other top official of each of the premises on his list and arranges a definite date and time for each inspection. When this has been done, he types, in duplicate, the smooth assignment sheet. One copy remains in his files and the other goes to the Assistant Chiefs or Platoon Commander. He also types an individual Inspection Assignment card for each station, each platoon. All these forms are distributed through channels.

When the Inspection Assignment cards reach the Battalion Chiefs they enter on the cards any special instructions deemed necessary, as well as citing any official departmental reading matter that will aid the inspector to better understand the hazards involved. Then they distribute the cards to the company commanders in their respective districts.

When the inspection has been completed, the Assignment Cards, properly countersigned by the company commanders the battalion chiefs and the assistant chief, are returned to the control officer, who uses the data thereon to bring his records up to date. He then files the cards.

Each major occupancy has been assigned an Inspection Frequency. These range from 6 months to one year, depending upon the hazards involved, but may be changed if experience indicates they should be. When any given occupancy is scheduled for its next inspecion, it is made by the opposite platoon.

All matters reported to the Bureau on a CORRECTION NOTICE are followed up by a regular Bureau inspector and a report of action taken is made by him through channels to the company commander who originated the CORRECTION NOTICE. The duplicate CORRECTION NOTICE and the Bureau's follow-up report are attached to the Inspection Report and remain permanently in the station file. An entire page of the Inspection Report is set aside for a floor plan or plot plan, whichever the company commander considers the more important.

A HINT FOR SAFE RESPONSE

Chief James W. Just, Director of Fire Service Extension, University of Maryland, College Park, in commenting on an accident where a fire truck was passing a red light asks "When will drivers ever stop confusing 'Right-of-way' with 'Right way'?"

Safety First

ANNOUNCES THE ADDITION OF TWO STARTLING NEW EXTINGUISHERS TO THEIR DRY CHEMICAL LINE

Appointing Dealers Now!

to sell Safety First equipment on a protected basis and to service present equipment now in your territory!

Here's an amazing sales opportunity to add to your present line, Safety First's great new dry chemical extinguishers! Underwriter's Laboratories, Inc., has awarded Safety First the highest rating ever given an extinguisher of corresponding poundage, B-1, C-1 for the 10-pound Safety First! Also available in light, compact 5-pound size. Unlimited sales potential . . . for industrial plants, busses, trucks, all motorized equipment! Write now for further details about amazing Safety First Dry Chemical Fire Extinguishers!

SAFETY FIRST COMPANY

ELMSFORD, NEW YORK

The Original MIDWESTERN Yellow Striped Safety Coat Is Again Available . . .

for Men of Action!

Here's Protection and Comfort in Your Hazardous Work of Safeguarding Life and Property Against FIRE!

Modern fire fighting calls for *specialized* protective clothing . . . clothing that safeguards the fireman's life on every run . . . clothing that enables him to use his equipment to the fullest advantage.

Every Midwestern product combines the thoughts and suggestions of practical Fire Chiefs and firemen from every section of the country . . . and every purchaser profits from years of Midwestern research and experience. That is why the famous Mackinaw Coat and otherMidwestern clothing have embodied in their design every feature necessary for the protection and comfort of firemen.

In our vast selection of crude rubber materials you will find a type of fabric suitable for your climate and needs. The softness and flexibility in the high-grade materials used are your assurance of long time service and comfort. Many Fire Chiefs are now including Midwestern clothing in their regular yearly budget and by placing your order early you can be assured of this adequate protection when needed.

For complete information have your Midwestern dealer show you our new garments now manufactured from crude rubber compounds. A letter to the factory will also bring you material samples for your inspection.

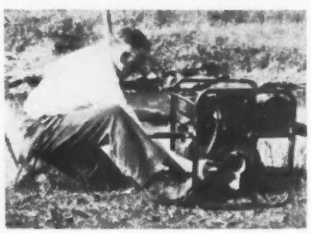
We now have available: White, Ivory and Brown crude rubber coats for Chiefs, Assistants and other officers; also all sizes short and ¾ length felt lined Firemen's boots for immediate shipment.

NONE GENUINE WITHOUT THIS TRADE MARK

MIDWESTERN MFG. CO. MACKINAW ILLINOIS

Manufacturers of the Famous **MACKINAW Coats**

For Quick-Starting Try A HALE FZZ



Users are pleased with the quick-starting ability of the Hale type FZZ Portable Pumping Unit—an especially valuable feature in freezing weather. The 4-cycle single cylinder 7.7 H.P. engine ensures ease and speed in starting.

Letter after letter from users, describes the FZZ's pumping ability to deliver through long lines of hose volumes and pressures they consider remarkable.

Note: Many FZZ owners also use a Hale 2½" adapter for pumping through a long single 2½" line to a fire distant from source of water. They then wye at the fire end into two 1½" lines providing two capable fire streams.

The FZZ will supply from draft 60 GPM at 90 lbs. and 150 GPM at 30 lbs.

Write for FZZ folder. Let us know if your Company wants a demonstration.

HALE FIRE PUMP COMPANY
CONSHOHOCKEN, PA.

FIRE PUMPS IN ALL STANDARD CAPACITIES

Special Problems in Civil Defense

Continued from page 17

traps. Such action would serve the twofold purpose of removing both a peacetime and a wartime danger.

While these measures are primarily obligations of planning, zoning and building agencies, fire authorities should be prepared to advise on this phase of wartime planning, and assist in the preparation of necessary federal, state and municipal legislation to provide sensible limitations on height, area and spacing of buildings, and to remove or make safe these conflagration breeding areas.

A fundamental point is that the only defense against many weapons is dispersion and open space. A prudent citizenry and progressive communities should be guided by this basis principle.

Communications

THE principle of operation of fire department communication systems for exclusive fire department service should be continued in setting up or extending communication facilities for wartime fire situations. It is not practical, for example, to expect fire departments to depend on a system shared with other services. Shared communication facilities were tried in England during the last war and failed.

Existing public and private fire alarm systems operate over wires. The standards for their installation require features which made these systems very reliable in operation. Such systems should be strengthened by correction of whatever deficiencies exist and maintained in accordance with recognized standards of performance. The private systems, operated on a "central station" or "proprietary" basis, provide for fire detection, alarm transmission, supervision of protective equipment and other services which are important in wartime. Such standard private fire alarm service should be maintained where it exists and be applied widely to important buildings and war industries.

The exact telephone service requirements in war would depend upon the selection that is made of fire department service areas. The public must be carefully instructed in the use of the telephone in reporting fires in wartime to prevent indiscriminate use which would tend to overload the telephone facilities. The kind and extent of these instructions will depend on the manner in which it is decided that fire emergency calls should be handled. In England, it was finally

decided to accept such calls only through a special fire reporting service operated during attacks by the fire guard service.

Radio services are a part of the fire service communications system. These provide facilities for communications when fire apparatus is out of quarters, as at the scene of a fire. It is necessary to provide this service both for peacetime and wartime operation in communities. Its usefulness in rural and forested areas is obvious.

For dealing with disasters or war situations, each fire department would require one or more mobile field radio units. These units are radio stations on automobiles. They can receive notification of fires, serve as dispatching offices for local companies, and maintain a channel of communications between the forces at the scene of the fire and public fire alarm headquarters.

One feature of fire department radio service is the use of portable pack sets of limited range for communication at a fire location. One function of a field communications unit would be to serve as the coordinating headquarters for fire ground communications.

Radio service is important for disaster or wartime conditions when it is necessary to move fire fighting companies within an area which may involve movements of one hundred miles or more, depending on the situation. Field units would play an important part in such mobilization. Each group of fire companies should be provided with a field unit operating on the same frequency as that of the companies and officers of the department responding.

Rules and regulations of the Federal Communications Commission provide adequate frequencies for use of fire service communications. Fire services should be encouraged to take up frequencies that are available and make the maximum use of radio facilities.

If there is no other communication service available it would become necessary to provide messenger and courier service for the fire department. While members of fire fighting companies and chiefs' aides can, and frequently do, perform such service, some of these messengers must be motorcycle-equipped for communication between stations and fire units working away from their stations.

It is more likely, however, that radio equipment in the described pack sets and field radio units can reduce messenger service requirements materially, if provided in a sufficiently large number of units.

FIRE EXTINGUISHERS ARE YOUR *BEST* PROTECTION

...and most economical, too! Tests conducted by impartial, nationally recognized approval laboratories have proved the superiority of Ansul Dry Chemical Fire Extinguishers on *Flammable Liquid Fires.*

In addition, Ansul Fire Extinguishers provide greater safety for the operator. The stream of Ansul Dry Chemical forms a protective screen safeguarding him against radiant heat.

More and more industrial plants, transportation companies, oil companies, etc. are switching to Ansul Extinguishers as their first line of fire defense. There is a reason.

Get the facts. Send for your copy of File No. 405. You'll also receive our latest literature together with comparative rating charts for the various types of fire extinguishers.

- Safe for use on electrical fires, too! Even high voltages are not conducted by dry chemical stream.
- Can be recharged at scene of fire furnishing continuing protection.
- Annual recharging is not necessary. Low maintenance costs.
- Longer range stream of dry chemical is effective in winds and drafts.
- Ansul Dry Chemical is non-abrasive, non-corrosive, non-toxic.
- Listed and Approved by Underwriters Laboratories and Factory Mutual Laboratories.

ANSUL CHEMICAL COMPANY
FIRE EXTINGUISHER DIVISION, MARINETTE, WISCONSIN
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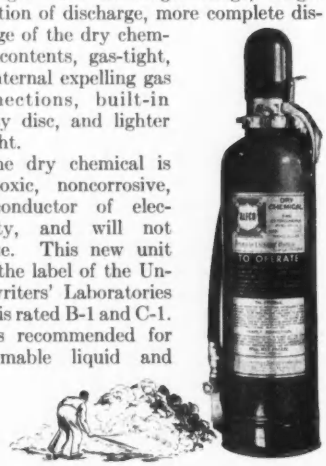
MANUFACTURERS' ANNOUNCEMENTS

Alfco Dry Chemical Fire Extinguisher

A NEW Dry Chemical type fire extinguisher has been announced by American-LaFrance-Foamite Corp. of Elmira, N. Y. According to the manufacturer, it has many new outstanding advantages such as longer range, longer duration of discharge, more complete discharge of the dry chemical contents, gas-tight, all-internal expelling gas connections, built-in safety disc, and lighter weight.



The dry chemical is nontoxic, noncorrosive, nonconductor of electricity, and will not freeze. This new unit has the label of the Underwriters' Laboratories and is rated B-1 and C-1. It is recommended for flammable liquid and electrical fires. For putting out fires in motors, busses, trucks, trailers, gasoline stations, pits, garages, and similar industrial type risks it is claimed its fire extinguishing effectiveness is outstanding. It is a hand portable unit identified as No. 30 Alfco Dry Chemical.

Free illustrated literature is available from the manufacturer upon request.

New Ladder Catalog Announced

THE ALUMINUM LADDER CO. of 347 Carbis St., Worthington, Pa., has announced a new illustrated two-color, three-fold catalog devoted entirely to the line of aluminum fire ladders it has developed during the last 18 years. The catalog gives full specifications and prices for 62 pieces of equipment falling into eight general classifications. Ranging from the simple wall ladders to heavy-duty extension ladders, the equipment fills the requirements of large metropolitan fire departments and small volunteer companies and plant fire brigades, alike. Copies of this catalog are available from the manufacturer upon request.

Family Fire Protection Urged by Pyrene

THE Pyrene Manufacturing Company of Newark, N. J., has announced a special offer to hardware, home appliance and department stores in an effort to push the sale of home fire protection to the public. The more dealers that accept this offer, it is pointed out, the more sales effort will be exerted on American householders to protect themselves, their families and their homes against fires. Included in the assortment offered to stores are three one-quart, vaporizing liquid extinguishers, two chrome and one brass. Also in the assortment are two one-quart cans of vaporizing liquid for refilling, a wood and masonite counter display, 100 leaflets, 25 full-color circulars, two window display streamers, complete mat services, dealer manual, and a booklet on the history of fire.

★ ★ ★

NEW BOOK

"Brand!" Alarm. The introduction of fire hose is generally credited to Jan van der Heyden and the fire brigade of The Netherlands city of Amsterdam. Consequently, a recent book with the above title about Dutch fire departments will be of interest to fire department people. Although limited for some readers by the fact that it is in Dutch, it is illustrated by 41 pages of photographs and numerous drawings showing firemen and fire apparatus, in peace and war, in the country towns as well as in the cities. The author is P. L. van Boven, Chief Inspector of Fire Brigades for The Netherlands. Chief van Boven is a sort of "State Fire Marshal" for Holland and wrote the book to enhance public interest in fires and fire prevention. To purchase the book send 8.35 florins (about $3.20) by international money order or draft to the following bookstore: W. P. v. Stockum & Zoon, Buitenhof 36, 's-Gravenhage, The Netherlands.

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Hundreds of units sold—
every user satisfied

Imitations have costly limitations

TYPICAL JOHN BEAN High-Pressure Fog Fire Fighter, recently delivered to Galveston Fire Department, Galveston, Texas. Bean units carry their own water supply —provide two guns of 30 gallons each—850 lbs. pump pressure. Delivered complete with all accessories.

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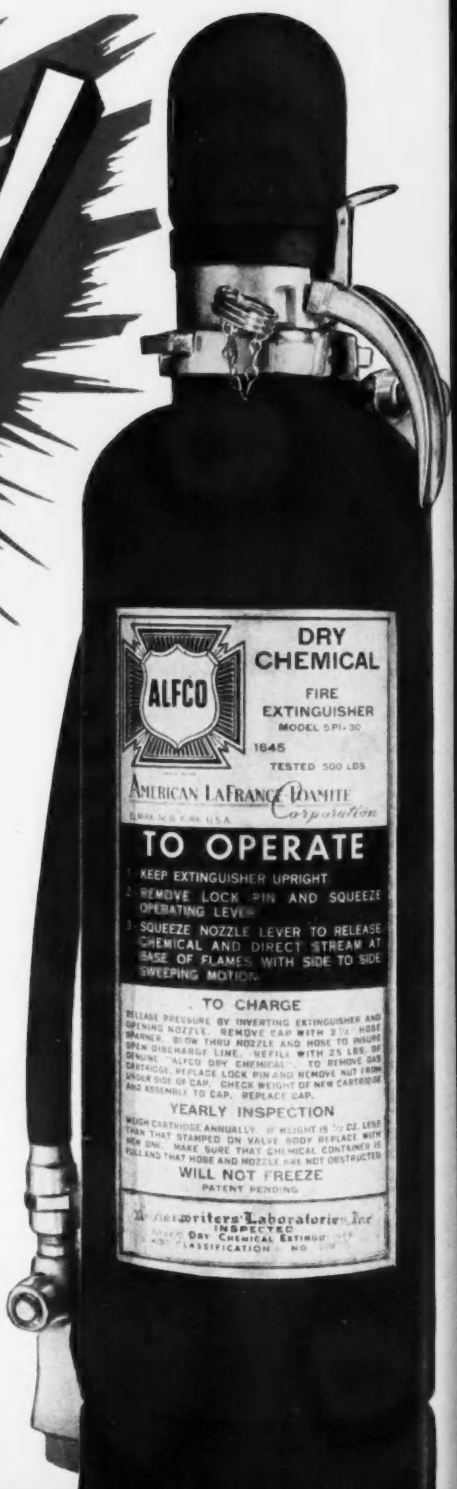
FIRE EXTINGUISHER



has these outstanding advantages . . . Longer range at all climatic temperatures! . . . Longer duration of discharge at all climatic temperatures! . . . More complete discharge of Dry Chemical contents! . . . May be operated in any carrying position! . . . Scientifically designed nozzle provides for wider coverage of fire area! . . . Gas-tight, all-internal expelling gas connections! . . . Built-in safety disc! . . . Hose couplings neatly swaged to hose for greater strength, smarter appearance! . . . High hose-mounting position avoids compacting of Dry Chemical—affords neater appearance! . . . Easy to recharge without special devices or replacement parts! . . . Occupies only 7" x 9" floor space! . . . Lighter weight—only 42 lbs. when ready for use! . . . Alfco Dry Chemical is nontoxic, noncorrosive, nonconductor of electricity and will not freeze! Underwriters' ratings: B-1, C-1. Recommended for flammable liquid and electrical fires.

Overall height 30"; Floor space occupied 7"x9"; Weight of Extinguisher, empty 17 lbs.; Weight of Dry Chemical Charge 25 lbs.; Weight of Gas Charge 8½ ozs.; Weight of Extinguisher charged for use 42½ lbs.; Total Weight packed for shipping 45 lbs.; Nozzle Polished Aluminum 6" long; Hose and Nozzle lengths approx. 26"; Shell Drawn Silicon Bronze; Finish Baked Red Enamel with Chrome, and Polished Aluminum trim.

Write us for literature and for demonstration.

AMERICAN-LAFRANCE-FOAMITE Corporation

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